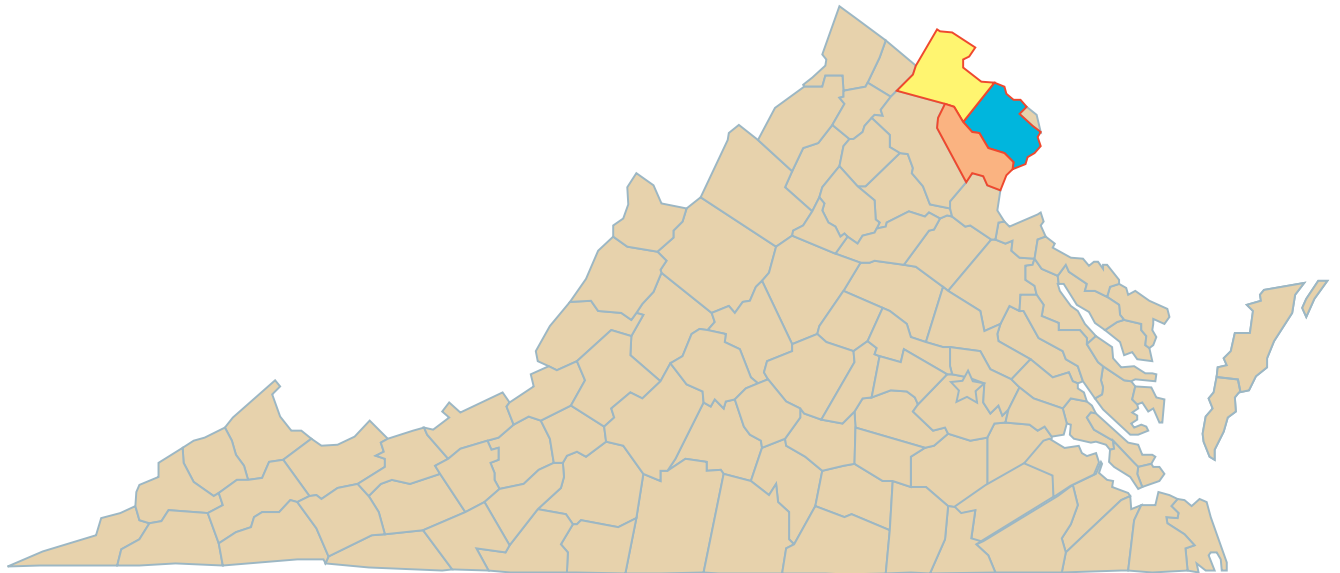


Community Profile of WIA XI

Fairfax County • Loudoun County • Prince William County • Fairfax city •
Falls Church city • Manassas city • Manassas Park city





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Executive Summary

This report provides a demographic, economic, and educational profile of Workforce Investment Area XI (WIA XI), Northern Virginia. The purpose of these profiles is to assist on-going strategic planning efforts by providing a solid, data-driven, foundation for strategic decision-making. The primary findings from this report are:

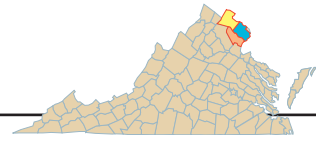
- WIA XI's population experiences less unemployment, is better educated, younger, and growing at a much faster rate than is typical for the state as a whole.
- Between 2000 and 2010, WIA XI will experience a major increase in its 55 and over population.
- WIA XI's population faces greater challenges with respect to English proficiency than is typical for the state as a whole.
- Projections indicate likely significant increases in employment in the Service sector.
- Employment increases in the Service sector – specifically, technology, health care, and education – will drive much of the demand for trained workers between 1998 and 2008.



I. Introduction

This report provides a community profile of Workforce Investment Area XI (WIA XI). It was produced by the Virginia Employment Commission, with assistance from the Virginia Community College System and the Virginia Economic Development Partnership, at the request of the Special Advisor to the Governor for Workforce Development. It is intended to assist on-going strategic planning efforts within the Workforce Investment Boards by providing a solid, data-driven, foundation for strategic decision-making.

The report is divided into four major sections. The first contains a profile of regional demographic characteristics and trends, the second supplies similar information for the regional economy, and the third provides a profile of regional education characteristics and projected demands for training and skills. These are followed by a summary and conclusion section.

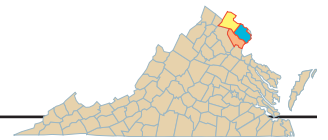




II. Demographic Profile

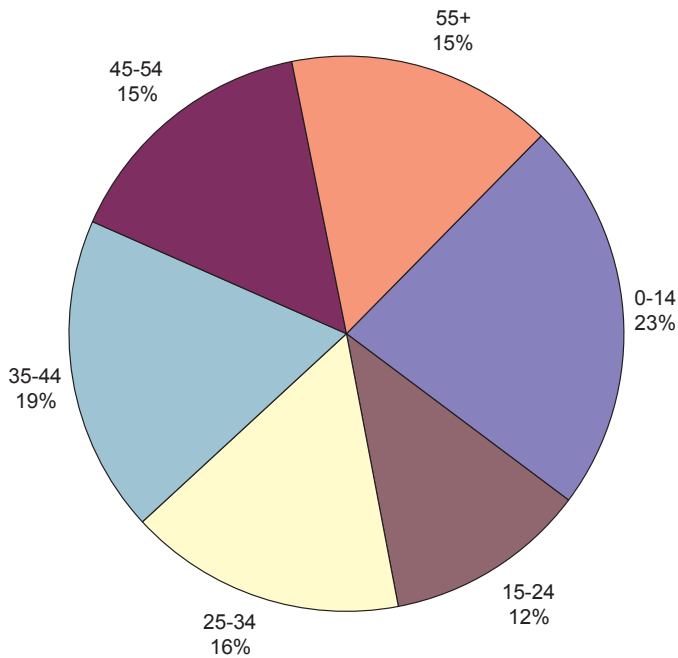
Population demographics are the single most important factor affecting WIA XI's future labor force. Some key features of the area's population are as follows:

- Tends to be slightly younger. Where statewide individuals who are 55 and older comprise 20 percent of the population, in WIA XI they comprise 15 percent of the population.
- Projected to increase by 330,239 persons (or 22.1 percent) between 2000 and 2010. The largest increase is expected in Fairfax County (150,351), followed by Loudoun County (90,401) and Prince William County (77,187).
- Larger proportion of individuals who "speak English less than well". Where statewide the proportion of individuals five and older who speak English less than well is 2.2 percent, in WIA XI it is 5.2 percent.
- Fairfax County draws the largest number of in-commuters (228,208) of any locality in WIA XI. 93,981 of these in-commuters come from WIA XI, 70,178 come from Virginia localities outside of WIA XI, and 64,049 come from out of state. Loudoun County has the second largest number of in-commuters (40,918), with 21,532 coming from within WIA XI, 10,590 from other Virginia localities, and 8,796 from out of state. Prince William County has the third largest number (35,360), with 13,437 coming from within WIA XI, 19,690 from other Virginia localities, and 2,233 from out of state. On the whole, WIA XI is a net exporter of workers with 190,726 individuals commuting into the area for work, while 270,314 of the area's residents commute to localities outside of WIA XI for work.

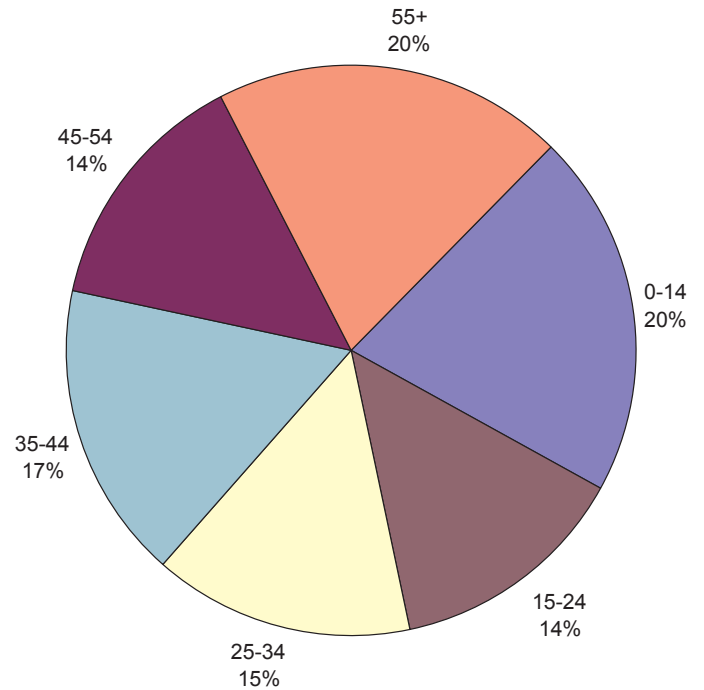


Population by Age Cohort

WIA XI



Virginia



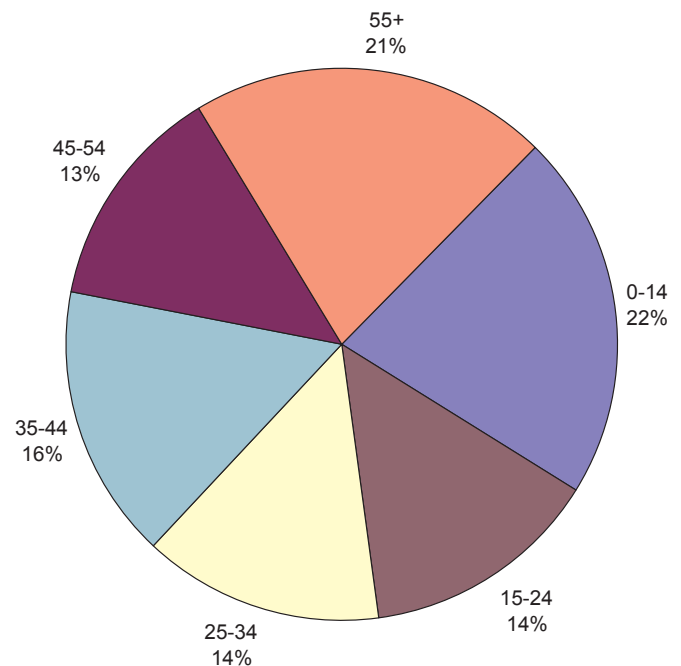
WIA XI

0-14	339,962
15-24	176,343
25-34	238,703
35-44	282,431
45-54	228,617
55+	231,405
Total	1,497,461

Virginia

0-14	1,453,452
15-24	963,469
25-34	1,036,911
35-44	1,200,950
45-54	999,548
55+	1,424,169
Total	7,078,494

United States



United States

0-14	60,253,375
15-24	39,183,890
25-34	39,891,724
35-44	45,148,527
45-54	37,677,952
55+	59,266,437
Total	281,421,906

Subparts may not add to total due to rounding.
Source: 2000 Census.



Population by Race/Ethnicity

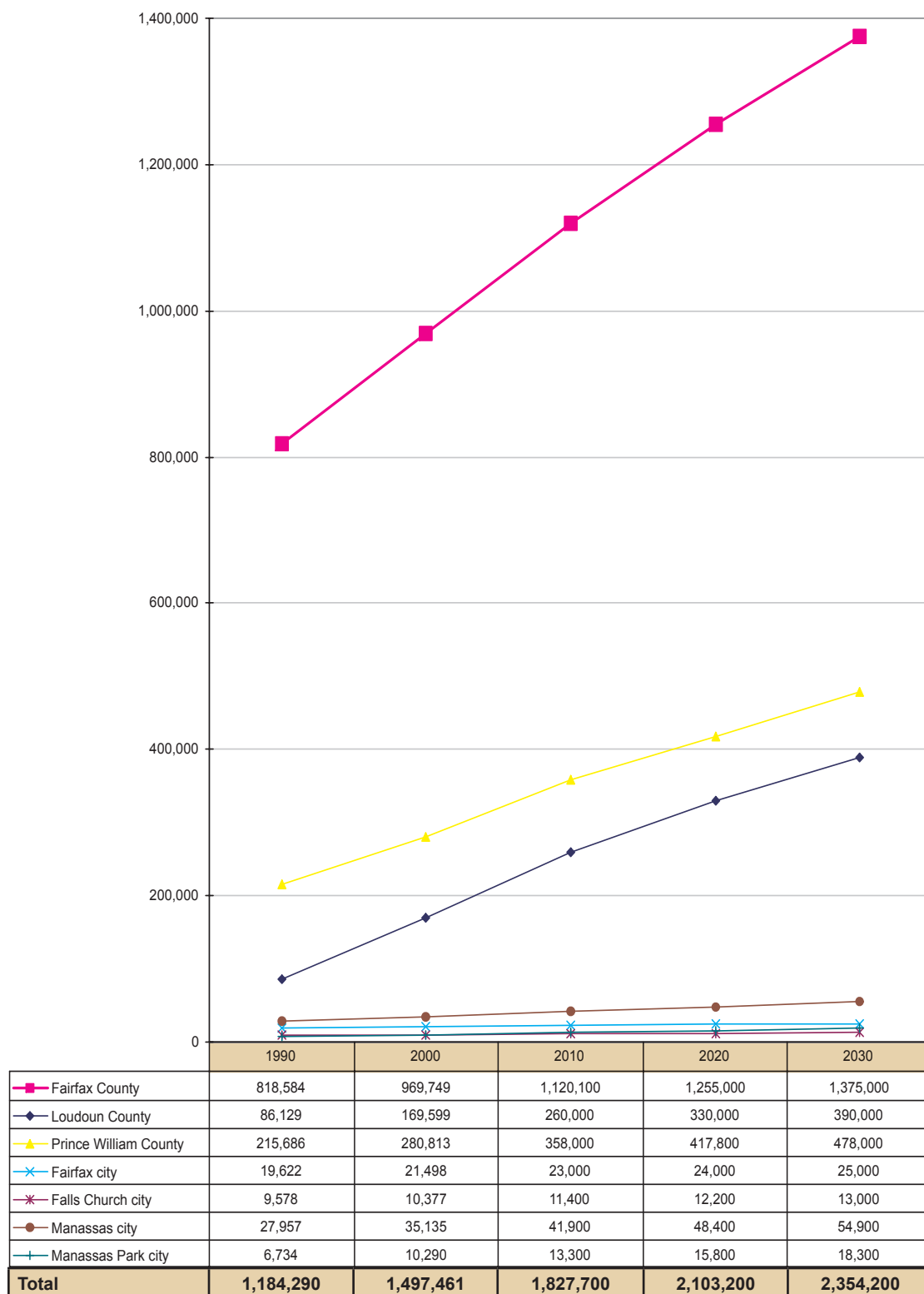
WIA VXi		
Total Population	1,497,461	100.0%
Race		
White	1,069,195	71.4%
Black or African American	154,586	10.3%
American Indian and Alaska Native	4,284	0.3%
Asian	150,722	10.1%
Native Hawaiian and Other Pacific Islander	1,225	0.1%
Other and Multi-Race	117,449	7.8%
Ethnicity		
Hispanic or Latino (of any race)	155,053	10.4%

Virginia		
Total Population	7,078,515	100.0%
Race		
White	5,120,110	72.3%
Black or African American	1,390,293	19.6%
American Indian and Alaska Native	21,172	0.3%
Asian	261,025	3.7%
Native Hawaiian and Other Pacific Islander	3,946	0.1%
Other and Multi-Race	281,969	4.0%
Ethnicity		
Hispanic or Latino (of any race)	329,540	4.7%

United States		
Total population	281,421,906	100.0%
Race		
One race	274,595,678	97.6%
White	211,460,626	75.1%
Black or African American	34,658,190	12.3%
American Indian and Alaska Native	2,475,956	0.9%
Asian	10,242,998	3.6%
Native Hawaiian and Other Pacific Islander	398,835	0.1%
Other and Multi-Race	22,185,301	7.9%
Ethnicity		
Hispanic or Latino (of any race)	35,305,818	12.5%



Population Change

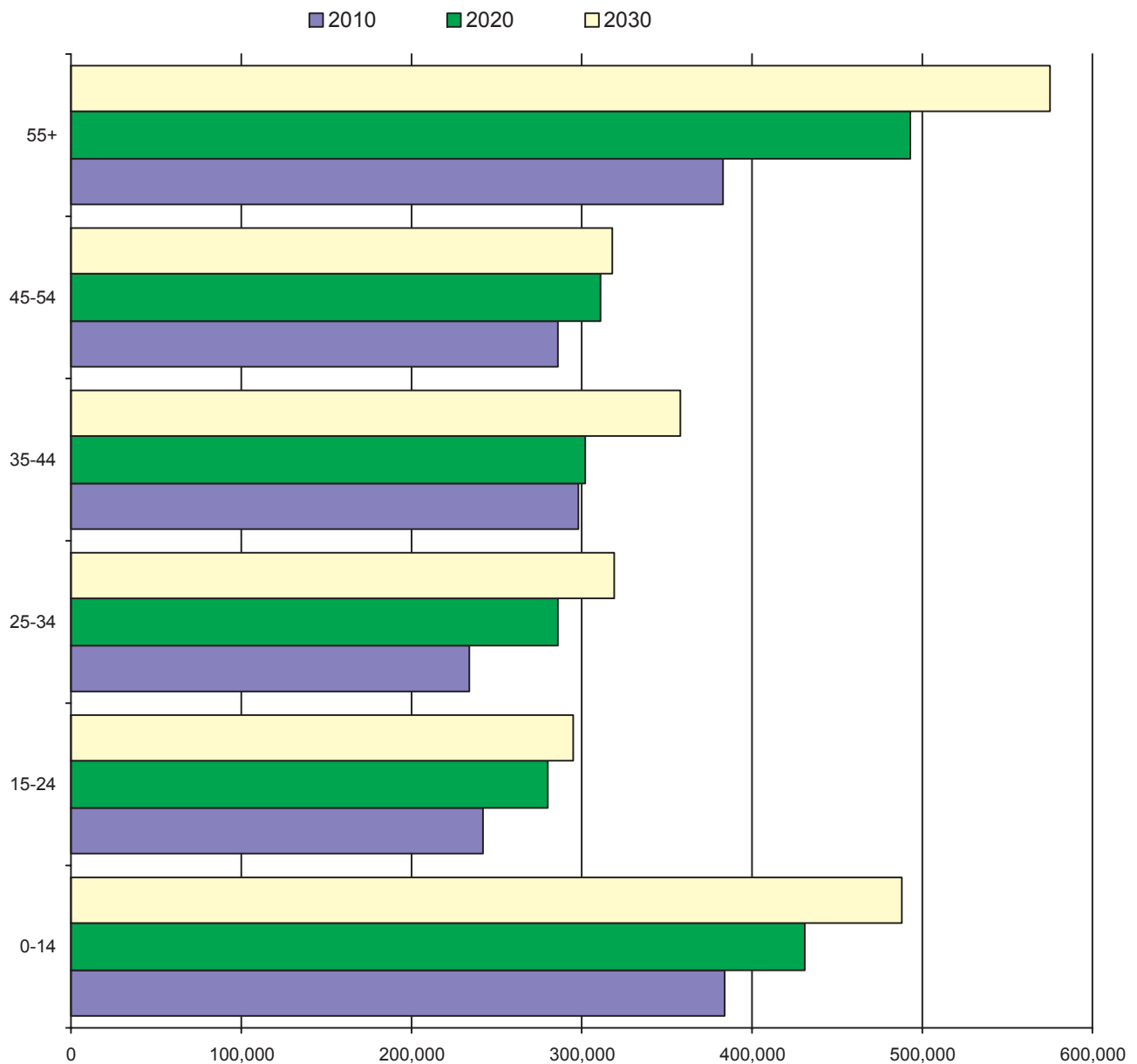


Data for 2010 - 2030 are projections. Subparts may not add to total due to rounding.

Source: Virginia Employment Commission, 08/03, U.S. Census Bureau.



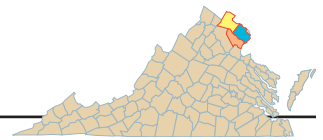
Population Projections by Age Cohort



	2010	2020	2030
0-14	384,301	430,823	488,394
15-24	241,591	280,334	295,194
25-34	234,322	285,607	319,022
35-44	298,352	302,226	358,102
45-54	286,228	311,300	318,480
55+	382,906	492,911	575,007
Total	1,827,700	2,103,200	2,354,200

Subparts may not add to total due to rounding.

Source: Virginia Employment Commission.



English Language Skills

(Age 5 and over)

WIA XI		
	Total	Speak English less than well
Fairfax County	902,189	55,481
Loudoun County	153,293	3,925
Prince William County	257,038	8,578
Fairfax city	20,236	1,408
Falls Church city	9,751	266
Manassas city	32,021	2,025
Manassas Park city	9,265	648
WIA XI	1,383,793	72,331
Virginia	6,619,266	143,865
<i>Percent of Individuals who speak English less than well</i>		
Virginia	2.17%	
WIA XI	5.23%	



Commuting Patterns¹

Out-Commute (From)	In-Commute (To)						
	Fairfax County	Loudoun	Prince William	Fairfax City	Falls Church City	Manassas City	Manassas Park City
	Fairfax County	16,420	7,013	15,741	4,061	1,937	334
	Loudoun	35,933	773	1,154	291	350	38
	Prince William	44,322	3,882	3,505	355	6,247	923
	Fairfax City	4,964	299	248	90	55	6
	Falls Church City	1,653	64	42	69		
	Manassas City	5,145	616	4,387	520	73	283
	Manassas Park City	1,964	251	974	239	10	662
Total To County/City From WIA XII	93,981	21,532	13,437	21,228	4,880	9,251	1,584
Other VA Localities	70,178	10,590	19,690	4,448	1,801	3,543	397
Maryland	50,564	5,126	1,780	2,448	787	347	120
Washington D.C.	12,244	761	348	453	370	100	71
Other Out of State	1,241	2,909	105	92	103	75	35
Total to County/ City:	228,208	40,918	35,360	28,669	7,941	13,316	2,207
Total In State	164,159	32,122	33,127	25,676	6,681	12,794	1,981
Total Out of State	64,049	8,796	2,233	2,993	1,260	522	226

Source: "In-Commuting Patterns" and "Out-Commuting Patterns," 2000 Census data, Virginia Employment Commission, http://www.vec.state.va.us/vecportal/lbrmkt/lmi_menu.cfm

1. Empty cells within the table indicate that the area's commuting represents less than .2% of total commuting or may be zero.
2. Total Commuting to/from WIA= Other VA Localities + Out of State

Example of how to use the Commuting Patterns table:

"How many of Loudoun's residents commute to Prince William County?" On the horizontal or To axis, locate the column labeled Prince William. On the vertical or From axis, locate the row labeled Loudoun. The intersection of the row and column, 773, is the number of Loudoun's residents that commute to Prince William County.



Commuting Patterns¹

Out-Commute (From)		Total From County/ City To WIA XII	Other VA Localities	Maryland	Washington D.C.	Other Out of State	Total From County/C ity:	Total In State	Total Out of State
	Fairfax County	45,506	87,442	27,544	88,908		249,400	132,948	116,452
	Loudoun	38,539	5,842	3,770	5,843		53,994	44,381	9,613
	Prince William	59,234	21,913	3,576	15,368		100,091	81,147	18,944
	Fairfax City	5,662	1,298	542	1,631		9,133	6,960	2,173
	Falls Church City	1,828	1,126	274	1,696		4,924	2,954	1,970
	Manassas City	11,024	1,452	329	864		13,669	12,476	1,193
	Manassas Park City	4,100	413	172	311		4,996	4,513	483

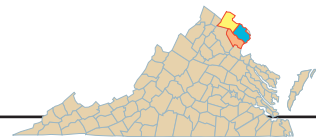
<i>Total WIA Commuting²</i>	
Total Commuting To WIA:	190,726
Total Commuting From WIA:	270,314



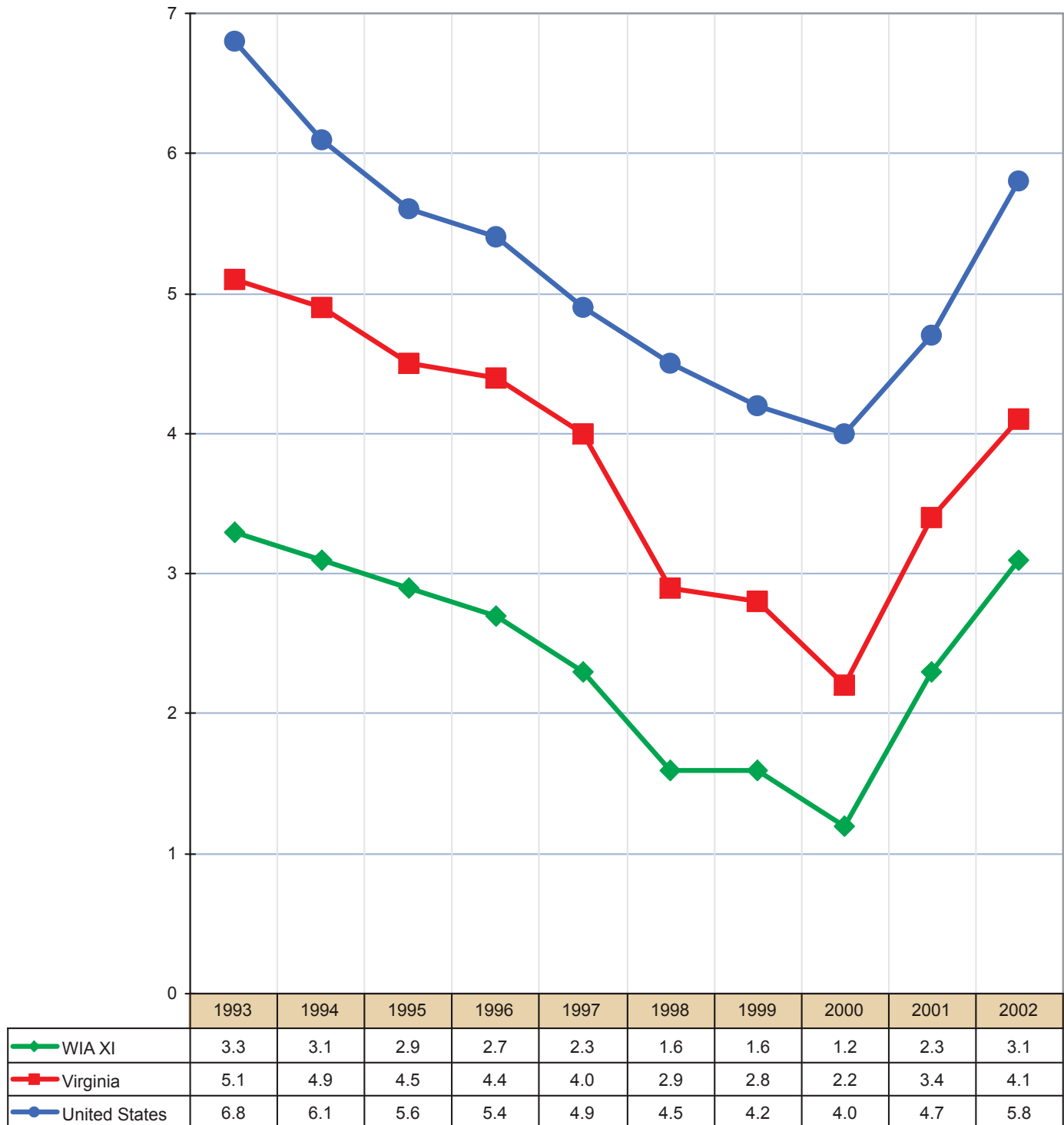
III. Economic Profile

Where population demographics provide information on underlying trends within the labor force, economic data provides more detailed information on the likely demand for specific types of workers. Some key features of WIA XI's economy are as follows:

- Unemployment rates are consistently below the statewide average, although the gap has narrowed in recent years. In 2002, WIA XI's unemployment rate was 3.1 percent, 1.0 percent below the statewide average of 4.1 percent.
- Employment is concentrated in Professional/Technical Services (17.1 percent), Government (14.2 percent), Retail Trade (11.7 percent), Construction (7.5 percent), and Health Care (7.3 percent).
- Most recent new hires have been in Services (44.0 percent), Retail Trade (29.7 percent), and Construction (10.3 percent).
- Overall personnel turnover is slightly above the statewide average (13.5 percent vs. 13.2 percent). Personnel turnover tends to be highest in Retail Trade (16.3 percent) and Agriculture, Forestry, and Fishing (16.3 percent), followed by Construction (15.8 percent) and Transportation, Communication, and Utilities (13.8 percent).
- Weekly wages were highest in Management (\$1,866), followed by Information (\$1,632), Finance/Insurance (\$1,515), Professional/Technical (\$1,432), and Wholesale Trade (\$1,423).
- Industries with the largest proportion of workers at or near retirement age (55 and above) are Manufacturing (15.2 percent), Mining (13.9 percent), Services (12.5 percent), and Finance, Insurance, and Real Estate (12.3 percent).
- Employment projections indicate that between 1998 and 2008, most employment growth will occur in Services (291,992 additional jobs), Retail Trade (45,690 additional jobs), and Transportation (15,531 additional jobs). In contrast, Federal Government is projected to lose 5,921 jobs.
- Employment projections also indicate that between 1998 and 2008, the biggest growth in occupational employment will be in Systems Analysts (21,270 openings), Computer Engineers (16,920 openings), Computer Support Specialists (15,260 openings), Home Health Aides (3,950 openings), and Database Administrators (3,350 openings). Alternatively, the biggest declines in occupational employment will be in Telephone Installers and Repairers, Directory Assistance Operators, and Peripheral EDP Equipment Operators.
- Based on January 2004 Unemployment data, the largest pools of available workers are in the Office and Administrative Support, Management, Computer and Mathematical, and Sales occupations.



Unemployment Rate Trends



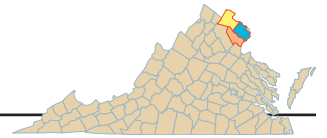


Employers by Size of Establishment

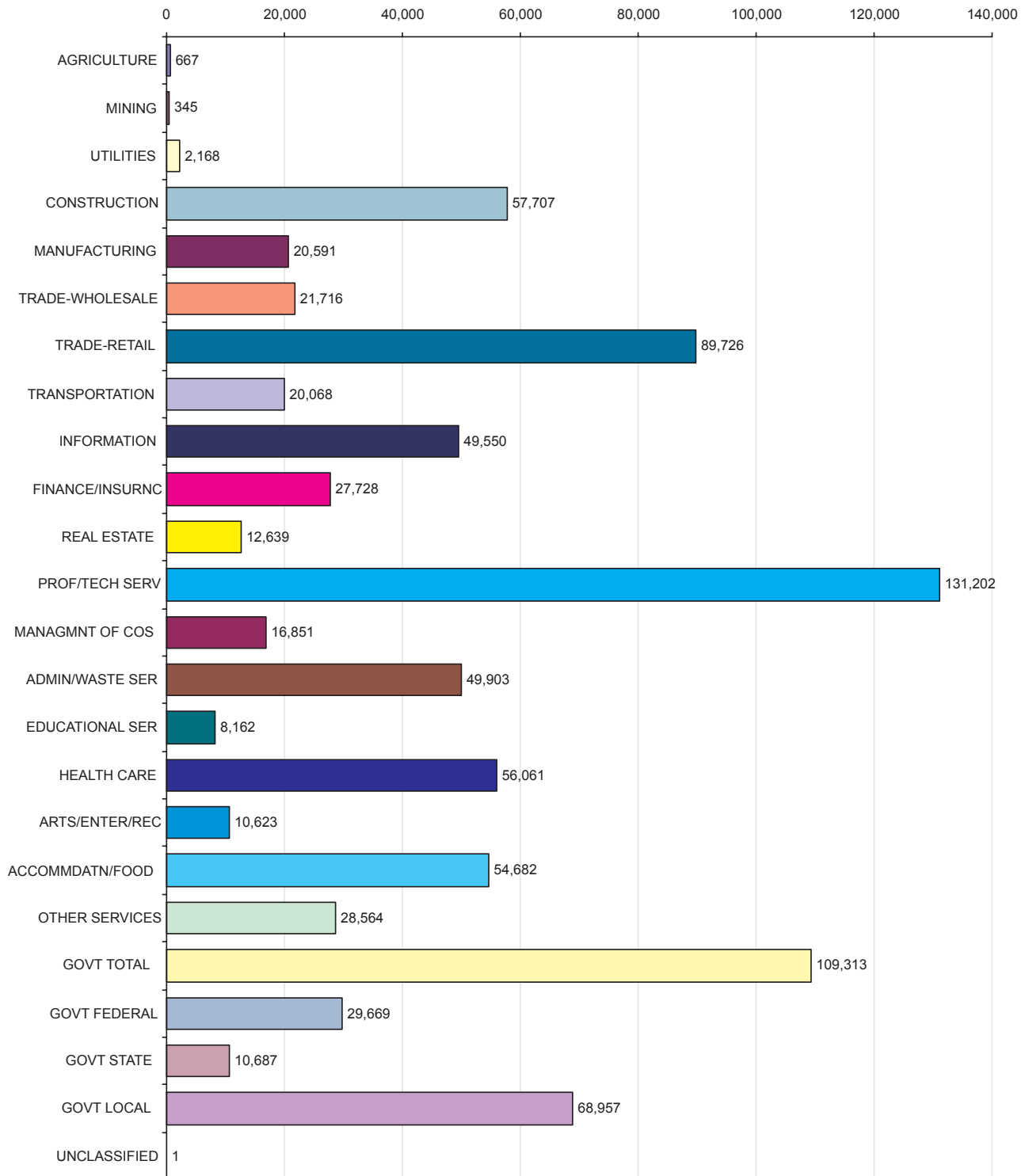
Number of Employees	WIA XI	Virginia
0 - 4	25,010	107,195
5 - 9	7,001	35,763
10 - 19	5,380	25,141
20 - 49	3,990	18,074
50 - 99	1,476	6,136
100 - 249	841	3,388
250 - 499	251	1,029
500 - 999	85	409
1000 +	53	229
TOTAL	44,087	197,364

Employment by Size of Establishment

Number of Employees	WIA XI	Virginia
0 - 4	40,655	188,377
5 - 9	47,131	238,634
10 - 19	73,517	340,363
20 - 49	123,190	553,221
50 - 99	101,783	422,392
100 - 249	122,750	503,348
250 - 499	84,986	352,727
500 - 999	58,221	274,493
1000 +	136,003	543,583
TOTAL	788,235	3,417,138



Employment by Industry

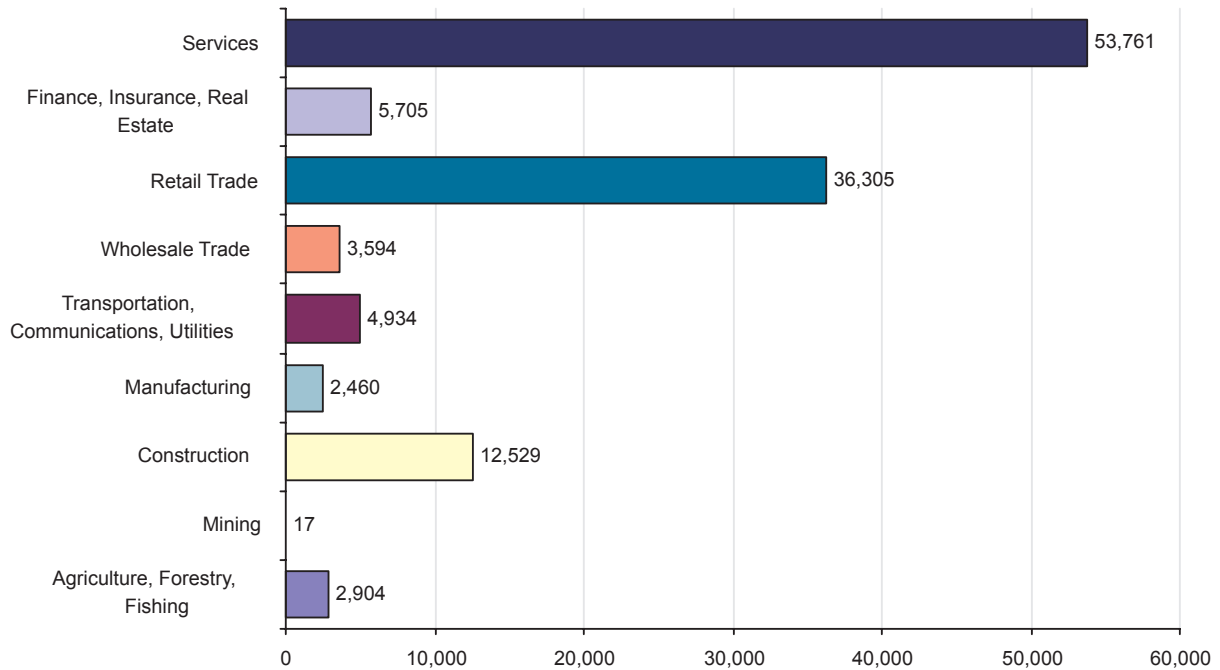


Total: 768,263



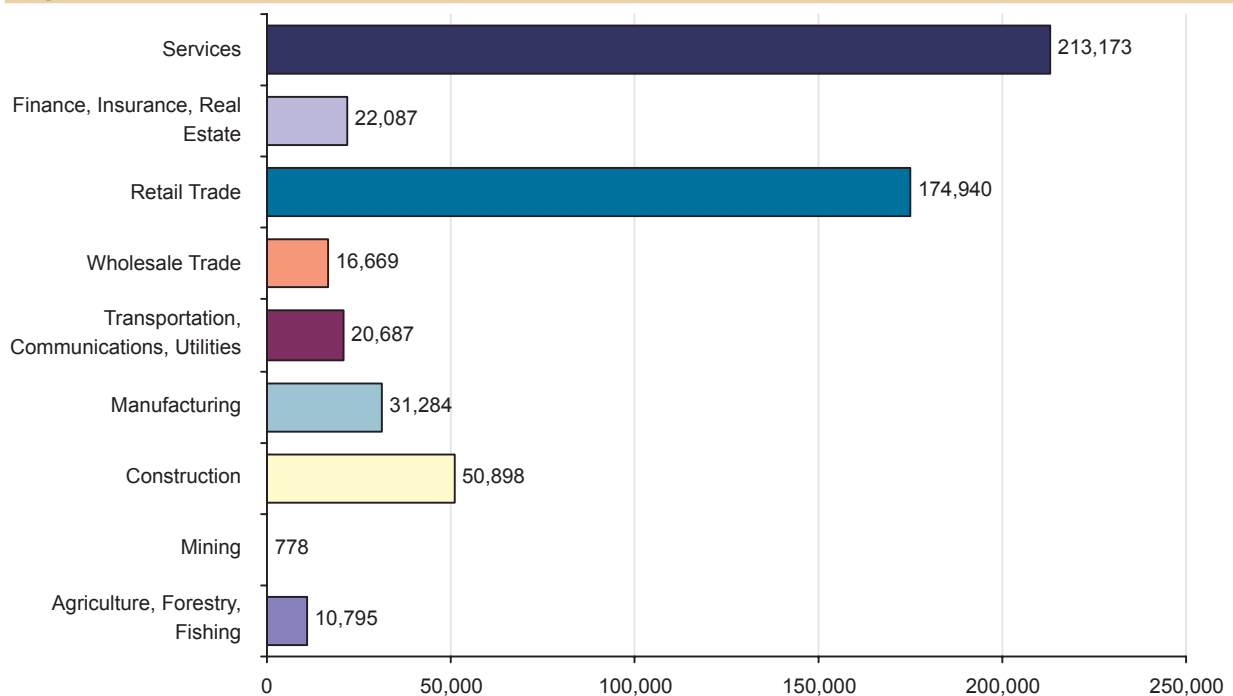
New Hires by Industry

WIA XI

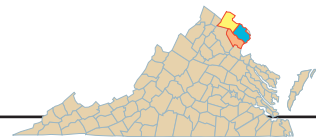


Total: 122,220

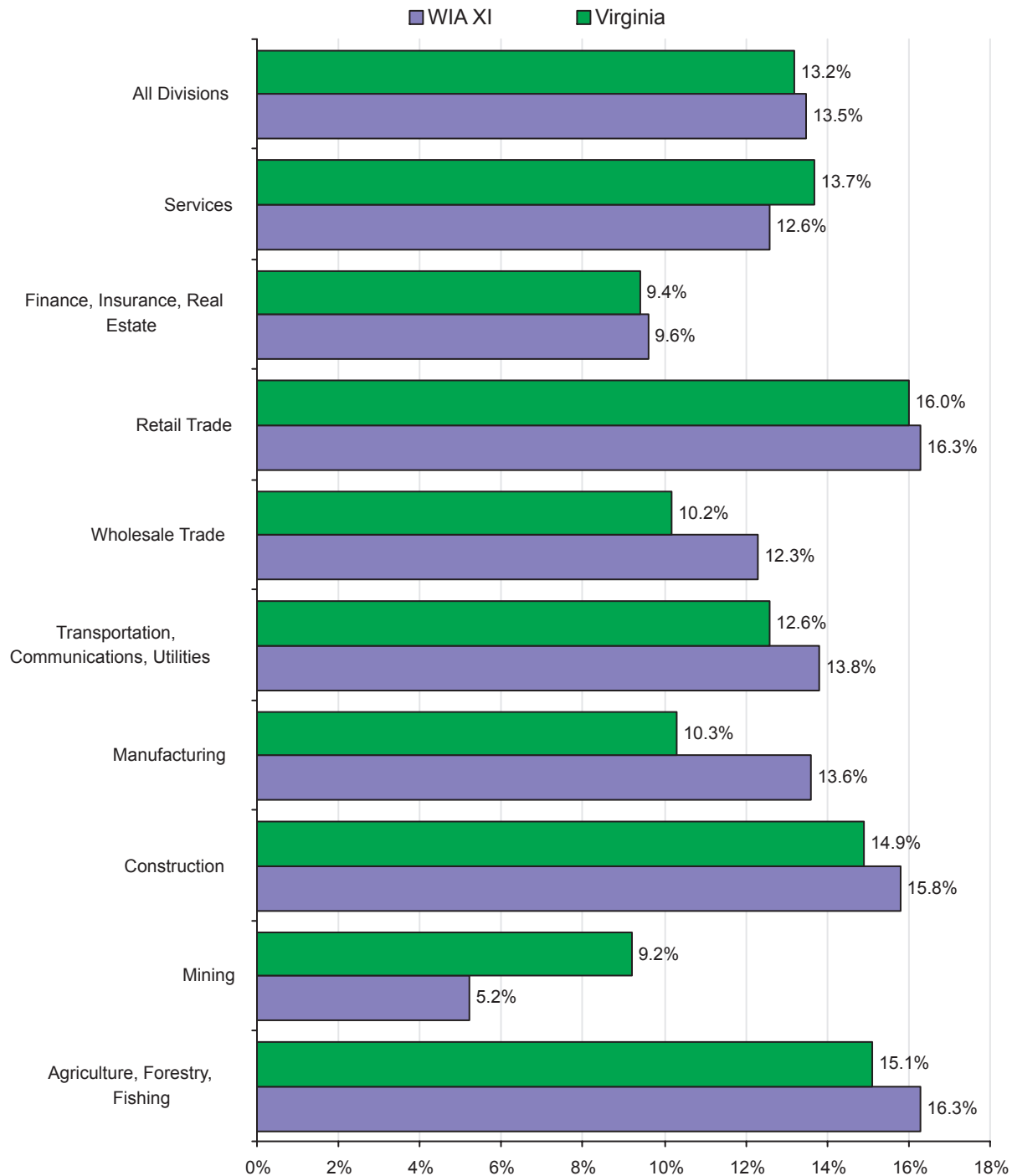
Virginia



Total: 541,323



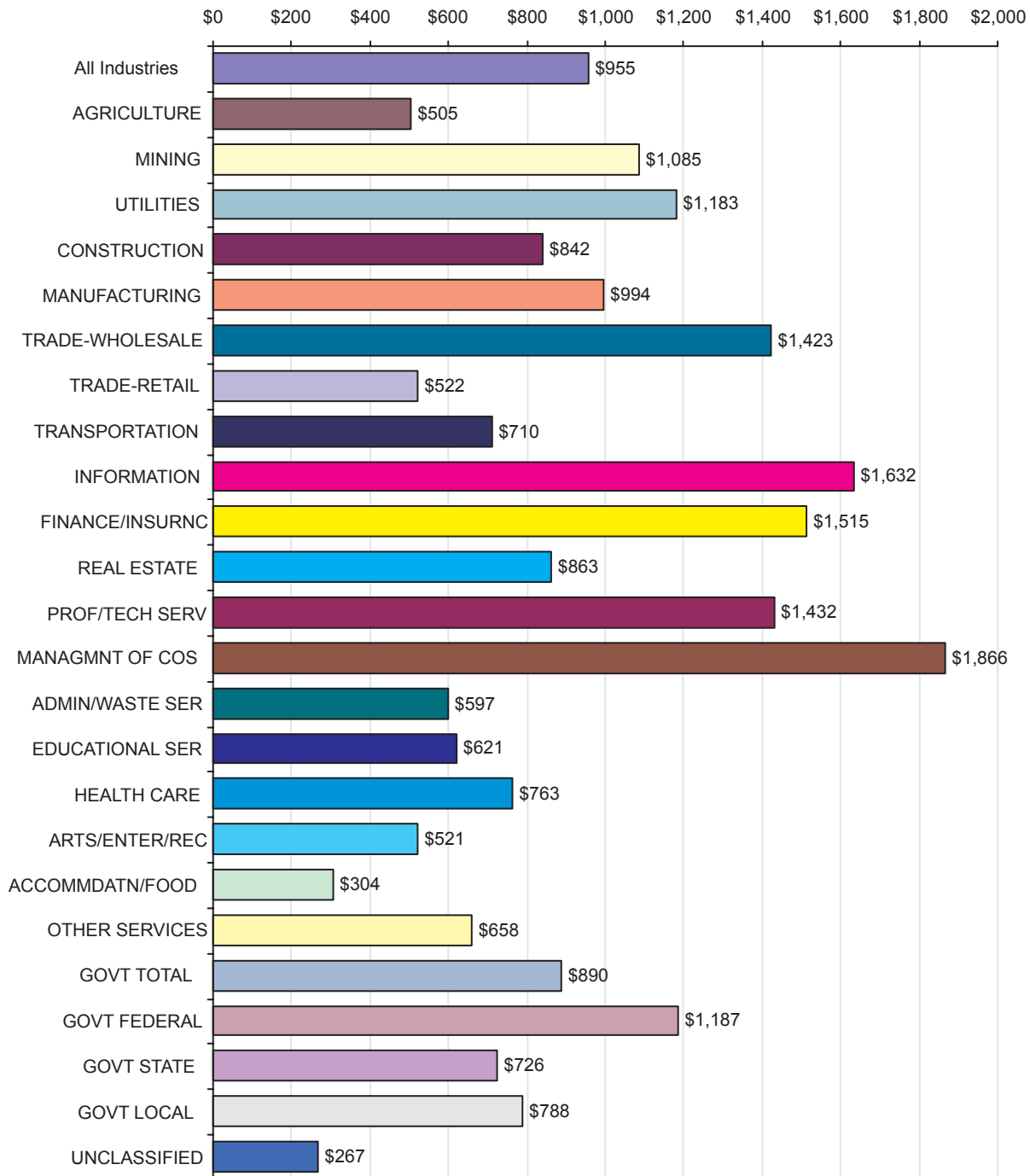
Turnover by Industry



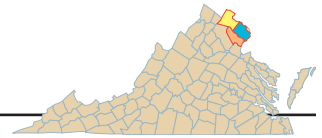
Source: U.S. Census Bureau, Local Employment Dynamics (LED) Program, 2002 annual averages.



Average Weekly Wage by Industry



Source: Covered Employment and Wages, annualized 2002.



Age of Workers by Industry

■ WIA XI
 ■ Virginia

	14 - 18	19 - 21	22 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 99	14 - 99
Total Employment	21,838	34,127	43,611	180,287	185,613	130,643	62,187	16,282	674,587
	106,356	162,652	180,601	659,050	739,013	576,728	282,064	81,995	2,788,457
Agriculture, Forestry, and Fishing	682	944	967	3,297	2,935	1,691	607	412	11,533
	2,219	3,048	3,158	9,842	9,481	6,372	2,705	1,600	38,424
Mining	0	14	18	85	131	106	47	10	410
	22	221	366	1,702	2,803	3,498	1,129	136	9,876
Construction	1,109	2,626	3,699	14,797	17,151	10,630	4,486	1,643	56,140
	3,907	10,799	13,521	50,770	61,204	41,178	18,359	6,009	205,745
Manufacturing	189	581	1,058	5,535	8,137	6,352	3,180	736	25,767
	2,142	9,334	14,693	72,949	106,504	94,364	46,938	7,579	354,504
Transportation, Communications, and Utilities	197	962	2,017	13,344	15,740	10,361	3,996	559	47,174
	1,059	4,542	8,097	42,450	52,051	40,960	16,851	3,199	169,208
Wholesale Trade	287	772	1,260	7,585	9,918	6,711	2,762	531	29,827
	1,691	4,449	6,486	33,407	43,317	32,948	15,708	4,557	142,564
Retail Trade	12,778	16,168	12,568	31,819	28,937	20,653	9,941	3,868	136,732
	67,335	76,880	57,338	136,252	130,099	94,331	48,135	20,155	630,522
Finance, Insurance, and Real Estate	365	1,672	2,862	11,513	13,602	9,575	4,471	1,085	45,144
	1,775	7,281	13,158	53,760	56,683	42,503	20,070	5,079	200,308
Services	6,232	10,388	19,162	92,311	89,060	64,562	32,696	7,436	321,847
	26,206	46,097	63,782	257,918	276,866	220,571	112,170	33,682	1,037,291



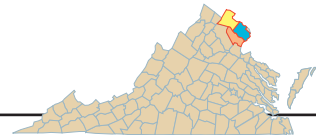
Total Employment by Industry

	Employment			Percent Change	
	Esti- mated 1998	Pro- jected 2008	Change	Total	Annual
Total All Industries	1,030,123	1,415,165	385,042	37.38%	3.23%
Agriculture, Forestry and Fishing, Total	14,759	16,598	1,839	12.46%	1.18%
Mining, Total	781	608	-173	-22.15%	-2.47%
Construction, Total	58,511	67,307	8,796	15.03%	1.41%
Manufacturing, Total	44,229	44,805	576	1.30%	0.13%
Durable Goods Manufacturing, Total	25,262	25,958	696	2.76%	0.27%
Nondurable Goods Manufacturing, Total	18,967	18,847	-120	-0.63%	-0.06%
Transportation and Public Utilities, Total	72,558	88,089	15,531	21.40%	1.96%
Transportation, Total	44,393	54,441	10,048	22.63%	2.06%
Communications and Utilities, Total	28,165	33,648	5,483	19.47%	1.79%
Wholesale and Retail Trade, Total	217,279	265,919	48,640	22.39%	2.04%
Wholesale Trade, Total	40,513	43,463	2,950	7.28%	0.71%
Retail Trade, Total	176,766	222,456	45,690	25.85%	2.33%
Finance, Insurance, and Real Estate, Total	57,878	72,641	14,763	25.51%	2.30%
Services, Total	455,738	747,730	291,992	64.07%	5.08%
Federal Government (Except Post Office)	65,473	59,552	-5,921	-9.04%	-0.94%
State Government (Except Education and Hospitality)	5,807	6,727	920	15.84%	1.48%
Local Government (Except Education and Hospitality)	37,110	45,189	8,079	21.77%	1.99%

Employment by Major Occupation Group

	Employment			Openings		
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
Total, All Occupations	1,030,099	1,415,152	37.38%	242,590	385,053	627,820
Executive, Administrative and Managerial Occupations	83,865	118,624	41.45%	14,750	34,759	49,510
Professional Specialty Occupations	276,413	437,987	58.45%	53,070	161,574	214,730
Marketing and Sales Occupations	125,761	163,795	30.24%	37,780	38,034	75,830
Administrative Support Occupations, Clerical	188,065	236,577	25.80%	38,770	48,512	87,310
Service Occupations	153,599	210,131	36.80%	48,730	56,532	105,270
Agriculture, Forestry, and Fishing Occupations	16,752	19,867	18.59%	4,570	3,115	7,680
Precision Production, Craft and Repair Occupations	87,894	105,203	19.69%	20,920	17,309	38,250
Operators, Fabricators, and Laborers	97,750	122,968	25.80%	24,000	25,218	49,240

Source: Industry and Occupational Employment Projections, 1998 — 2008.
Projections are for the Northern Virginia MSA.



Growth Occupations

	Employment			Openings			Wages
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total	Median Annual Wage
Computer Support Specialists	8,586	23,317	171.57%	530	14,731	15,260	\$54,286
Database Administrators	1,809	4,867	169.04%	290	3,058	3,350	\$55,525
Computer Engineers	9,992	26,288	163.09%	620	16,296	16,920	\$77,675
Systems Analysts	15,034	35,373	135.29%	930	20,339	21,270	\$65,895
Computer Science Teachers, Pstscndry	110	247	124.55%	30	137	170	\$44,453
Home Health Aides	3,061	6,576	114.83%	430	3,515	3,950	\$20,252
Personal & Home Care Aides	884	1,898	114.71%	230	1,014	1,240	\$21,682
Instructors, Adult (Non-VocEd)	793	1,695	113.75%	80	902	980	\$43,344
Health Diagnostics Teachers, Pstscndry	270	549	103.33%	70	279	350	\$70,010*
Residential Counselors	892	1,797	101.46%	200	905	1,110	\$24,647
Occupational Therapy Assistants	136	269	97.79%	30	133	160	\$34,989
Art, Drama & Music Teachers, Pstscndry	163	318	95.09%	50	155	210	\$49,360
Physical, Corrective Therapy Assistants	430	812	88.84%	110	382	490	\$42,784
Business Teachers, Pstscndry	246	459	86.59%	70	213	280	\$53,842
Medical Assistants	1,594	2,924	83.44%	390	1,330	1,720	\$27,745
Physician Assistants	383	700	82.77%	60	317	380	\$60,183
Desktop Publishing Specialists	201	360	79.10%	30	159	190	\$37,563
Speech Pathologist, Audiologists	576	1,031	78.99%	90	455	550	\$53,718
Child Care Workers	3,173	5,645	77.91%	310	2,472	2,780	\$17,448
Physical Therapists	626	1,113	77.80%	90	487	580	\$58,563

Declining Occupations

	Employment			Openings		
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
Typesetting & Composing Machine Oprs	97	40	-58.76%	20	-57	20
Railroad Brake, Signal & Switch Oprs	55	26	-52.73%	20	-29	20
Paste-up Workers	80	39	-51.25%	10	-41	10
Compositors & Typesetters, Precision	66	39	-40.91%	10	-27	10
Directory Assistance Operators	459	291	-36.60%	100	-168	100
Station Installers & Repairers, Telephone	547	352	-35.65%	180	-195	180
Film Strippers, Printing	168	112	-33.33%	30	-56	30
Peripheral EDP Equipment Operators	365	258	-29.32%	50	-107	50
Shipfitters	141	11	-21.28%	30	-30	30
Transportation Attendants	327	261	-20.18%	70	-66	70

Source: Industry and Occupational Employment Projections, 1998 — 2008. 2002 OES Wage Survey Data
Projections are for the Northern Virginia MSA. Wages are for WIA XI.

* These figures reflect the Median Annual Wage for Virginia. Wage data for these occupations in WIA XI are not available.

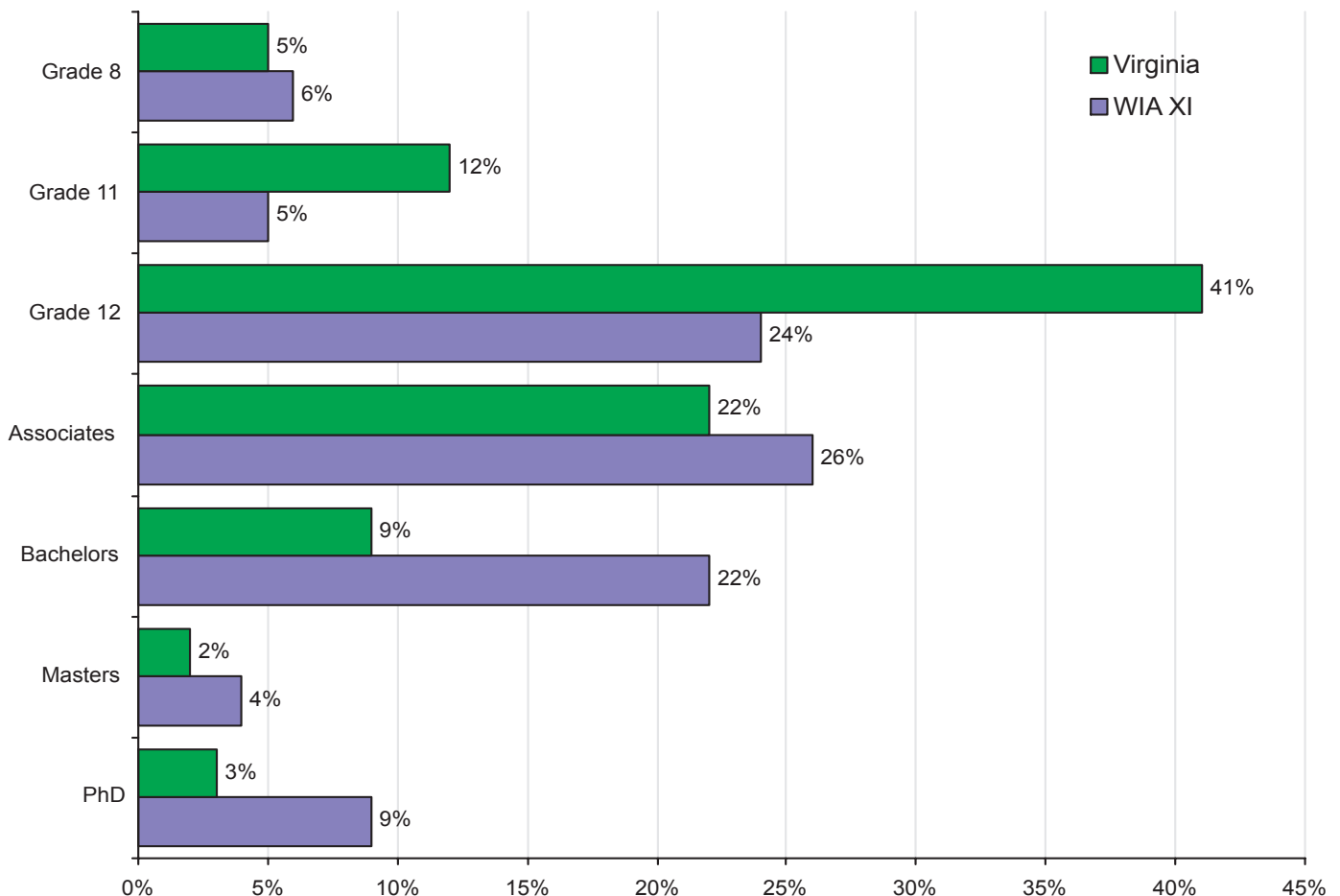


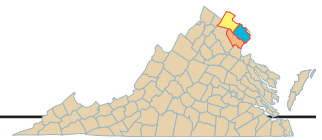
Characteristics of the Unemployed

Marketing the local labor force to new or expanding companies requires information about potential employees that would be available for immediate hire. Monthly data, collected as unemployed individuals apply for unemployment insurance benefits, provide information on various characteristics of the unemployed claimants. Demographic characteristics are recorded for age, race, sex, and education level. In addition, the industry of last employment and the occupation held in the most recent job is also part of the information collected when applicants register for unemployment insurance benefits.

As seen in the chart below, only 24% of the unemployed claimants in Northern Virginia report a grade 12 education as the highest level attained, as compared to 41% of claimants statewide. However, for every level of education from Associates degree and higher, Northern Virginia has a higher percentage of unemployed claimants than the state. Northern Virginia has 12,318 unemployed claimants with at least an Associates degree, while many other regions of the state have a much smaller ratio of claimants with post-secondary education.

Unemployed Claimants by Education Level





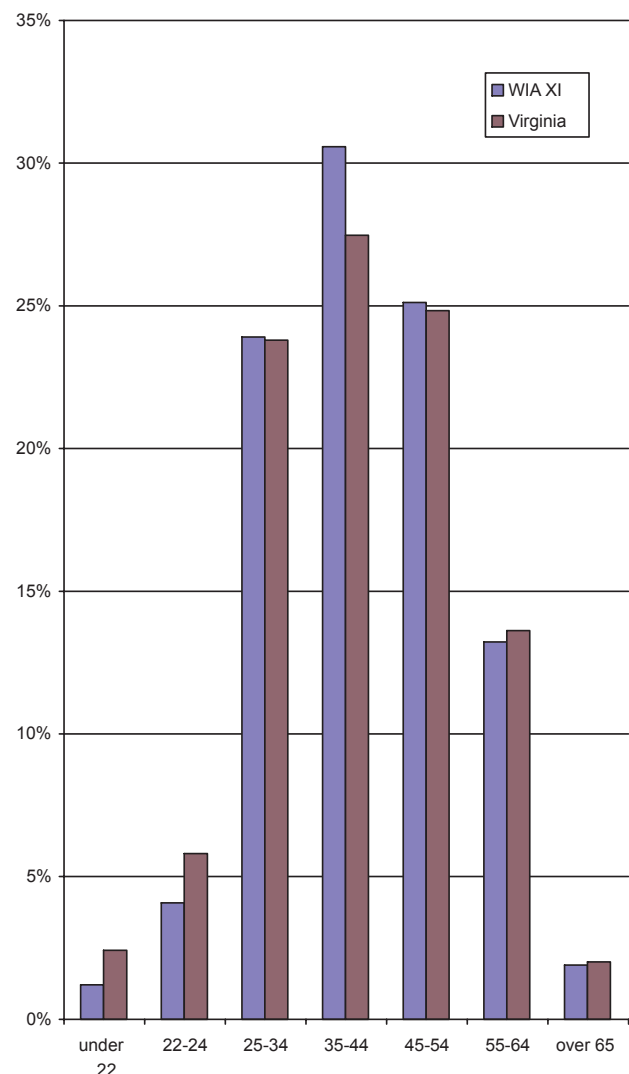
Characteristics of the Unemployed

Office and Administrative Support workers comprise the largest category of unemployed beneficiaries in Northern Virginia, accounting for almost 17% of total claimants in February 2004. Management and Computer and Mathematical workers also account for a significant share of the unemployed claimants, collectively representing over 27% of the total. Employers requiring workers in these occupation categories will find an abundant supply.

Claimants by Occupation

OCCUPATION	Number of Claimants
Management	2,964
Business and Financial Operations	1,468
Computer and Mathematical	2,492
Architecture and Engineering	430
Life, Physical, and Social Science	117
Community and Social Services	133
Legal	201
Education, Training, and Library	293
Arts, Design, Entertainment, Sports, and Media	320
Healthcare Practitioners and Technical	217
Healthcare Support	286
Protective Service	181
Food Preparation and Serving Related	419
Building and Grounds Cleaning and Maintenance	598
Personal Care and Service	219
Sales and Related	2,096
Office and Administrative Support	3,383
Farming, Fishing, and Forestry	49
Construction and Extraction	1,920
Installation, Maintenance, and Repair	493
Production	636
Transportation and Material Moving	961
Military Specific	21
SOC INA	8
TOTAL	19,905

Claimants by Age





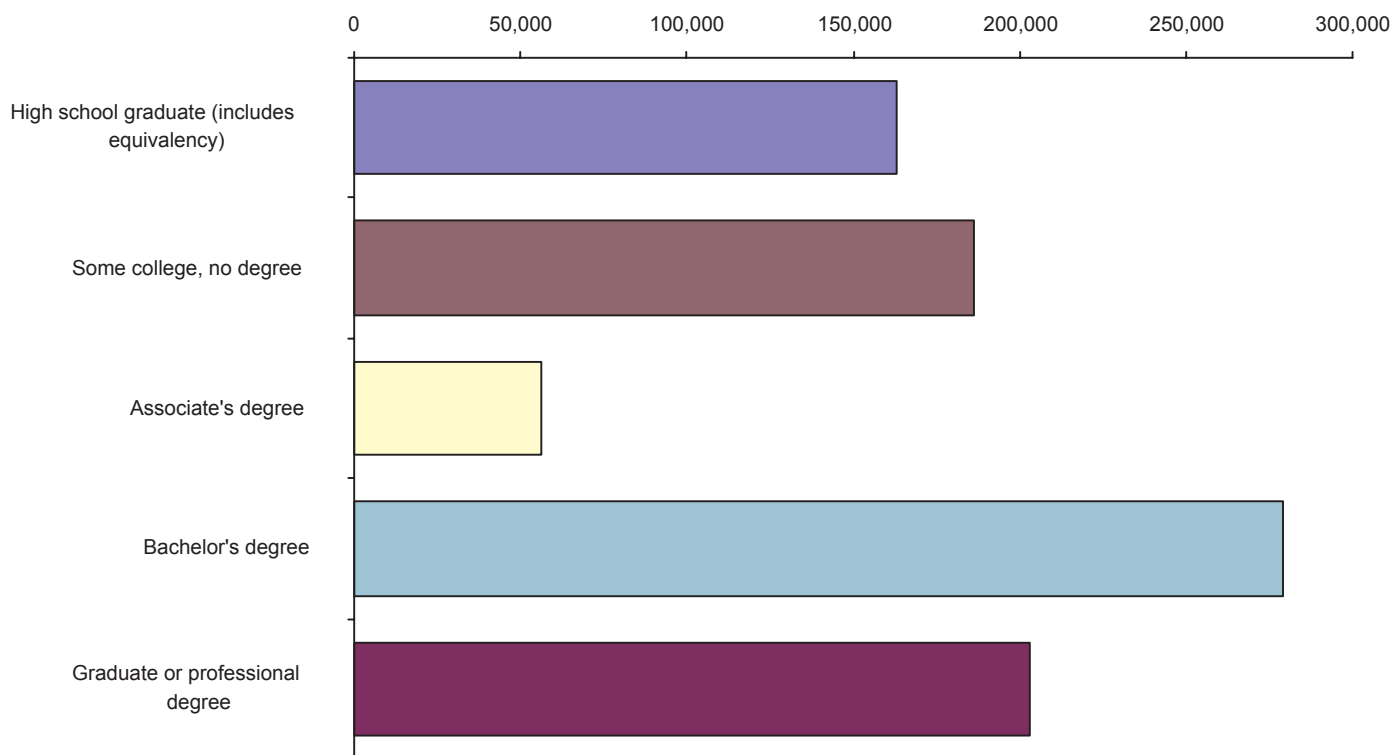
IV. Education Profile

Education data describe the human capital embodied in the current labor force and provide insight into the education and training that will be required to fill the ranks of the future labor force. Some key features of the WIA XI's education and training environment are as follows:

- Educational attainment at the baccalaureate level and above is high relative to the statewide average.
- An assessment of the occupation-driven demand for local training needs indicates that between 1998 and 2008 the greatest demand for graduates from:
 - *Post-secondary vocational programs* will be in Auto Mechanic/Technician, Computer Systems Installer and Repairer, Cosmetologist, Licensed Practical Nursing, and Travel Service Marketing Operations.
 - *Associate's degree programs* will be in Business Systems Networking and Telecommunications, Information Sciences and Systems, Management Information Systems and Business Data Processing, and Registered Nursing.
 - *Baccalaureate degree programs* will be in Accounting; Business Computer Programming; Child Care and Guidance Workers/Managers; Civil Engineering; Computer and Information Sciences; Computer Engineering; Computer Programming; Electrical, Electronics, and Computer Engineering; Elementary Teacher Education; General Education; General Finance; Human Resources Management; Information Sciences and Systems; Management Information Systems and Business Data Processing; Mechanical Engineering; Physical Education and Coaching; Public Relations and Organizational Communications; and Purchasing, Procurement, and Contracts Management.
 - *Post-Baccalaureate degree programs* will be in Law and Medicine
- An assessment of the occupation-driven demand for worker skills indicates that between 1998 and 2008 there will be a slight increase in required *reading for information* and *writing* skills.



Education Level



Population 25 years and over	983,960
High school graduate (includes equivalency)	163,247
Some college, no degree	186,533
Associate's degree	56,514
Bachelor's degree	278,974
Graduate or professional degree	203,349



Occupation-Driven Training Projection

In this section we use Virginia Employment Commission's (VEC's) occupational employment projections for the Northern Virginia Metropolitan Statistical Area (MSA),¹ in combination with a crosswalk developed by the National Crosswalk Service Center (NCSC) to "map" occupations into their prerequisite education and training programs.² Often these are many-to-many relationships where one occupation maps into several alternative education and training programs, and one program serves as a conduit into multiple occupations. The analysis is then further refined by using a classification scheme developed by the Bureau of Labor Statistics (BLS) to "sort" occupations according to the minimum degree or award typically required for employment in that occupation.³ Through this combination of steps, we are able to use VEC's occupational employment projections to predict the occupation-driven demand for specific education and training programs within the Northern Virginia MSA.⁴ The method used to accomplish this task is not new and has been successfully employed in earlier studies conducted in several states, including Virginia.⁵

The table that follows depicts the annual occupation-driven demand for training needs in the Northern Virginia MSA for the 1998 to 2008 period, as derived from this analysis. As these data show, the largest numbers of needed graduates are in auto repair (*e.g.*, Auto/Automotive

Mechanic / Technician), business (*e.g.*, Accounting; Business Administration and Management; General Finance; Human Resource Management; Public Relations, Purchasing, Procurement, and Contracts Management), clerical (*e.g.*, Administrative Assistant/Secretarial Science), computer technology (Business Computer Programming/Programmer, Business System Networking and Telecommunications, Computer Programming, Computer and Information Sciences, Computer Systems Installer/Repairer, Information Sciences and Systems, Management Information Systems and Data Processing), education (*e.g.*, Elementary Teacher Education, General Education, and Physical Education Teaching and Coaching), engineering (*e.g.*, Computer Engineering, Civil Engineering, Electrical/Electronic and Communication Engineering, Engineering and Industrial Management, Mechanical Engineering), government (*e.g.*, Public Administration), health (*e.g.*, Medicine (MD), Registered Nurse, and Licensed Practical Nurse), law (*e.g.*, Law (LLB, JD) and Paralegal/Legal Assistant), and services (Child Care and Guidance Workers and Managers, Cosmetologist, Dental Hygienist, Real Estate, Travel Services).

¹ The Northern Virginia Metropolitan Statistical Area is comprised of Arlington, Clarke, Culpeper, Fairfax, Fauquier, King George, Loudoun, Prince William, Spotsylvania, Stafford, and Warren counties, and the cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas City, and Manassas Park City.

² The National Crosswalk Service Center (NCSC) is funded by the U.S. Department of Labor, Employment and Training Administration. This crosswalk identifies the prerequisite instructional programs necessary for employment in 651 specific occupations.

³ The Bureau of Labor Statistics classifies occupations according to eleven education and training categories. Four of these involve on-the-job training or work experience only and the remaining seven require some level of postsecondary education (*i.e.*, first-professional degree, doctoral degree, master's degree, bachelor's degree, associate's degree, or postsecondary vocational training). For purposes of this study, we restrict the analysis to occupations that fall within these seven education and training categories.

⁴ More formally, the demand for education and training programs is calculated as:

$$DCIP_i = \sum Dcip_{ji}$$

Where,

$$Dcip_{ji} = (SOC_j)(GCIP_i / \sum GCIP_{ij})$$

and,

$DCIP_i$ = the annual demand for instructional program i

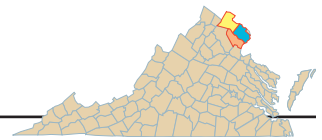
$\sum Dcip_{ji}$ = the annual demand for instructional program i across all occupation(s) j

SOC_j = the projected annual openings for occupation j

$GCIP_i$ = Virginia graduates from instructional program i (for academic year 2000-01)

$\sum GCIP_{ij}$ = Virginia graduates from all instructional program(s) i (for academic year 2000-01) related to occupation j

⁵ Similar methods are used in at least seven states (California, Georgia, Idaho, Illinois, New Jersey, Utah, and Virginia) to project anticipated education and training demands. For an excellent exposition of this method see, William J. Drummond and Jan L. Youtie, "Occupational Employment, Demand for College Graduates, and Migration: A Statewide View," a report to the Board of Regents, University System of Georgia, 1999. For an example of how this method has been used previously in Virginia see, A. Fletcher Mangum, "System-Wide Needs Assessment for Virginia Education," State Council of Higher Education for Virginia, March 28, 2002, p.90.



Annual Occupation-Driven Training Needs in the Northern Virginia MSA, 1998 – 2008

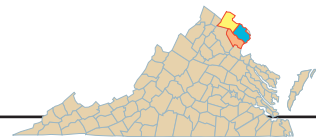
Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Accounting					544			544
Actuarial Science					4			4
Adaptive Physical Education/Therapeutic Recreation					2			2
Administrative Assistant / Secretarial Science, General							88	88
Adult and Continuing Education Administration				1				1
Advertising				8				8
Aeronautical and Aerospace Engineering Tech/Technician						5		5
Aerospace, Aeronautical and Astronautical Engineering					27			27
Agricultural Animal Husbandry and Production Management				1	2			3
Agricultural Business and Management, General				2				2
Agricultural Business/ Agribusiness Operations				1				1
Agricultural Economics					2			2
Agricultural Engineering					1			1
Agricultural Supplies Retailing and Wholesaling					1			1
Agricultural Teacher Education (Vocational)					8			8
Agriculture / Agricultural Sciences, General					1			1
Animal Sciences, General				3	2			5
Applied and Resource Economics					1			1
Applied Mathematics, General			14					14
Architectural Engineering					10			10
Architectural Environmental Design					14			14
Architectural Urban Design and Planning			3					3



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Architecture					85			85
Art History, Criticism and Conservation			4					4
Art Teacher Education					31			31
Art, General				29				29
Arts Management				5				5
Atmospheric Sciences and Meteorology					4			4
Audiology/Hearing Sciences			3					3
Auto / Automotive Mechanic / Technician							239	239
Automotive Engineering Tech / Technician							13	13
Aviation Systems and Avionics Main. Technologist/ Technician							1	1
Barber/Hairstylist							13	13
Basic Medical Sciences, Other		1						1
Bible/Biblical Studies					9			9
Bilingual/Bicultural Education					22			22
Biochemistry		3						3
Biology Teacher Education					4			4
Biology, General		38						38
Business Administration and Management, General				2,803	12			2,815
Business Computer Programming / Programmer					134			134
Business Information and Data Processing Services, Other					11			11
Business Machine Repairer							2	2
Business Marketing and Marketing Management				53				53
Business Quantitative Methods and Management Science, Other			16					16
Business Services Marketing Operations					5			5
Business Systems Analysis and Design					54			54

Education Profile

WIA XI



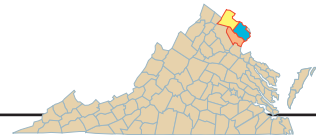
Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Business Systems Networking and Telecommunications					22	361		383
Business Teacher Education (Vocational)					8			8
Business / Managerial Economics					6			6
Cardiovascular Tech / Technician						13		13
Cartography					8			8
Cell and Molecular Biology, Other		2						2
Ceramic Sciences and Engineering					1			1
Ceramics Arts and Ceramics				1				1
Chemical Engineering					24			24
Chemistry Teacher Education					1			1
Chemistry, General					22			22
Chemistry, Other					1			1
Child Care and Guidance Workers and Managers, General					186			186
Child Care Provider / Assistant					59			59
Child Care Services Manager					17			17
Chiropractic (DC, DCM)	8							8
City/Urban, Community and Regional Planning			46					46
Civil Engineering, General					194			194
Civil Engineering, other					3			3
Clinical Psychology			2					2
Clothing, Apparel and Textile Workers and Managers, General					1			1
College/Postsecondary Student Counseling and Personnel			3					3
Commercial Photography							2	2
Communication Disorders, General			14					14
Communication Systems Installer and Repairer							102	102



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Communications Technol. / Technicians, Other							4	4
Community Organization, Resources and Services				5				5
Computer and Information Sciences, General					1,342			1,342
Computer and Information Sciences, Other					43			43
Computer Engineering					451			451
Computer Engineering Tech / Technician						57		57
Computer Installer and Repairer							22	22
Computer Maintenance Tech/Technician							58	58
Computer Programming					310			310
Computer Science					14			14
Computer System Analysis					67			67
Computer Teacher Education					11			11
Cosmetic Services, General							10	10
Cosmetologist							156	156
Counseling Psychology			2					2
Counselor Education Counseling and Guidance Services			77					77
Court Reporter							4	4
Crafts, Folk Art and Artisanry				1				1
Dance							4	4
Data Processing Tech / Technician					15			15
Dental Clinical Services / Graduate Dentistry (MS, PhD)	4							4
Dental Hygienist						93		93
Dentistry (DDS, DMD)	37							37
Design and Applied Arts, Other					17			17
Design and Visual Communications					47			47
Dietetics / Human Nutritional Services					4			4

Education Profile

WIA XI



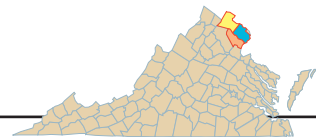
Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Divinity/Ministry (B.D., M.Div.)	4							4
Drama and Dance Teacher Education					2			2
Drawing				1				1
Earth and Planetary Sciences					7			7
Ecology		1						1
Economics, General					39			39
Economics, Other					1			1
Education Administration and Supervision, General				56				56
Education Administration and Supervision, Other				4				4
Education of the Deaf and Hearing Impaired					2			2
Education of the Emotionally Handicapped					1			1
Education of the Mentally Handicapped					1			1
Education of the Multiple Handicapped					1			1
Education of the Specific Learning Disabled					3			3
Education of the Speech Impaired					3			3
Education, General				111	676			787
Educational Supervision				3				3
Electrical and Electronic Engineering – Related Tech / Technician						66		66
Electrical and Electronics Equipment Installer and Repairer							17	17
Electrical, Electronic and Communications Engineering Tech / Technician						95		95
Electrical, Electronics and Communication Engineering					401			401
Electromechanical Tech / Technician						13		13
Elementary Teacher Education					327			327



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Elementary, Middle and Secondary Education Administration				11				11
Emergency Medical Tech / Technician							33	33
Engineering / Industrial Management				501	7			508
English Teacher Education					45			45
Enterprise Management and Operation, General				24				24
Environmental Health		1						1
Epidemiology		1						1
Farm and Ranch Management				2				2
Fashion and Fabric Consultant					2			2
Fashion Design and Illustration					21			21
Fashion Merchandising				4				4
Film/Video and Photographic Arts, Other							2	2
Finance, General				308	284			592
Financial Management and Services, Other				6				6
Financial Planning					16			16
Financial Services Marketing Operations					6			6
Fine Arts and Art Studies, Other				5				5
Fine/Studio Arts				13				13
Floristry Marketing Operations					8			8
Food Sciences and Tech					1			1
Food and Nutrition Science					2			2
Foods and Nutrition Studies, General					6			6
Foreign Languages Teacher Education					6			6
Forestry, General					1			1
French Language Teacher Education					1			1

Education Profile

WIA XI



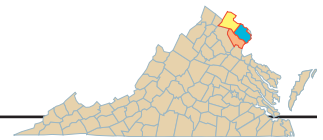
Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Funeral Services and Mortuary Science						4		4
General Buying Operations					21			21
General Retailing Operations					21			21
Genetics, Plant and Animal		1						1
Geological and Related Sciences, Other					7			7
Geology					36			36
Geophysics and Seismology					2			2
Graphic Design, Commercial Art and Illustration				37				37
Health and Medical Administrative Services, Other				2				2
Health and Physical Education, General					15			15
Health and Physical Education/Fitness, Other					2			2
Health Occupations Teacher Education (Vocational)					1			1
Health System/Health Services Administration				2				2
Health Teacher Education					21			21
Higher Education Administration				3				3
History Teacher Education					5			5
Home Economics Teacher Education (Vocational)					3			3
Home Furnishings and Equipment Installers and Consultants, General					2			2
Hospital/Health Facilities Administration				1				1
Human Resources Management				68	220			288
Human Resources Management, Other					24			24
Industrial and Organizational Psychology			1					1
Industrial Design					11			11



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Industrial Electronics Installer and Repairer							4	4
Industrial/Manufacturing Engineering					26			26
Information Sciences and Systems					1,327	453		1,780
Instrumentation Tech / Technician						5		5
Insurance and Risk Management					22			22
Insurance Marketing Operations					80			80
Interior Architecture					6			6
Interior Design					16			16
Interior Environments					1			1
Intermedia				1				1
International Business				70				70
International Finance				1				1
Investments and Securities				9	48			57
Junior High / Intermediate / Middle School Teacher Education					18			18
Juridical Science / Legal Specialization (LLM, MCL, JSD)	10							10
Labor/Personnel Relations and Studies				14	30			44
Landscape Architecture					6			6
Law (LLB, JD)	158							158
Law and Legal Studies, Other	12							12
Legal Administrative Assistant / Secretary							5	5
Library Science, Other			3					3
Library Science / Librarianship			62					62
Logistics and Materials Management				4				4
Make-Up Artist							9	9
Management Information Systems and Business Data Processing					625	712		1,337

Education Profile

WIA XI



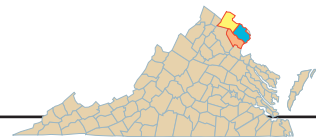
Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Management Science			50					50
Marine/Aquatic Biology		1						1
Marketing Management and Research, Other				2				2
Marketing Operations Teacher Ed./Mkt. & Distribution Teacher					1			1
Material Engineering					5			5
Materials Science					1			1
Mathematical Statistics			1					1
Mathematics			11					11
Mathematics Teacher Education					31			31
Mechanical Engineering					140			140
Medical Administrative Assistant / Secretary							15	15
Medical Immunology	1							1
Medical Office Management							6	6
Medical Pharmacology and Pharmaceutical Sciences	4	1						5
Medical Records Administration				1				1
Medical Records Tech / Technician						32		32
Medical Transcription							30	30
Medicine (MD)	190							190
Metal and Jewelry Arts				7				7
Metallurgical Engineering					1			1
Microbiology/ Bacteriology		3						3
Miscellaneous Biological Specializations, Other		1						1
Missions/Missionary Studies and Misology					2			2
Molecular Biology		1						1
Music Teacher Education					57			57
Natural Resources Conservation, General					2			2
Natural Resources Management and Policy					1			1



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Natural Resources Management and Protective Services, Other					1			1
Neuroscience		1						1
Nuclear Engineering					8			8
Nuclear Medical Tech / Technician						2		2
Nursing (R.N. Training)						490		490
Nursing Anesthetics (Post-R.N.)						4		4
Nursing Midwifery (Post-RN)						1		1
Nursing Science (Post-R.N.)						23		23
Nursing, Adult Health (Post-R.N.)						2		2
Nursing, Family Practice (Post-R.N.)						7		7
Nursing, Maternal/Child Health (Post-R.N.)						1		1
Nursing, Other						72		72
Nursing, Psychiatric/Mental Health (Post-RN)						1		1
Nursing, Public Health (Post-R.N.)						1		1
Nursing, Surgical (Post-R.N.)						1		1
Nutritional Sciences		1						1
Occupational Therapy					32			32
Occupational Therapy Assistant						16		16
Oceanography					10			10
Operations Research			7					7
Optometry (O.D.)	10							10
Organizational Behavior Studies					57			57
Osteopathic Medicine (D.O.)	30							30
Painting				2				2
Paralegal/Legal Assistant						95		95
Parks, Recreation and Leisure Facilities Management					7			7

Education Profile

WIA XI



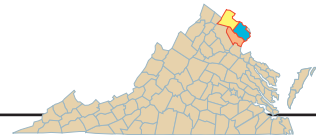
Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Parks, Recreation and Leisure Studies					7			7
Parks, Recreation, Leisure and Fitness Studies, other					1			1
Pastoral Counseling and Specialized Ministries	1				2			3
Pharmacology, Human and Animal		1						1
Pharmacy (B. Pharm., Pharm D.)	48							48
Pharmacy Administration and Pharmaceutics	1							1
Pharmacy, other	3							3
Photography							5	5
Physical Education Teaching and Coaching					122			122
Physical Therapy			58					58
Physical Therapy Assistant						49		49
Physician Assistant					38			38
Physics, General		9						9
Physiology, Human and Animal		1						1
Podiatry (DPM, DP, Pod.D)	2							2
Practical Nurse (LPN Training)							296	296
Psychiatric / Mental Health Services Technician							21	21
Psychology, General			31					31
Psychology, Other			2					2
Public Administration				173				173
Public Administration and Services, Other				5				5
Public Health, General				1				1
Public Policy Analysis				2				2
Public Relations and Organizational Communications				6	110			116
Purchasing, Procurement and Contracts Management				2	181			183



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Radio and Television Broadcasting Tech / Technician							4	4
Reading Teacher Education					72			72
Real Estate					73		35	108
Recreational Therapy					4			4
Religious Education					4			4
Respiratory Therapy Technician						22		22
Robotics Tech / Technician						4		4
School Psychology			8					8
Science Teacher Education, General					16			16
Sculpture				1				1
Secondary Teacher Education					78			78
Social Science Teacher Education					7			7
Social Studies Teacher Education					20			20
Spanish Language Teacher Education					6			6
Special Education, General					55			55
Special Education, Other					4			4
Speech Teacher Education					1			1
Speech-Language Pathology			10					10
Speech-Language Pathology and Audiology			28					28
Sport and Fitness Administration/Management					7			7
Structural Engineering					1			1
Surgical / Operating Room Technician							14	14
Surveying					27			27
Systems Engineering					1			1
Taxation					31			31
Teacher Education, Specific Academic and Vocational Programs					35			35

Education Profile

WIA XI



Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Technical Teacher Education (Vocational)					9			9
Technical Theater/Theater Design and Stagecraft				1	3			4
Technology Teacher Education / Industrial Arts Teacher Ed					12			12
Theological and Ministerial Studies, Other					3			3
Theological Studies and Religious Vocations, Other	1							1
Theology/Theological Studies	4							4
Trade and Industrial Teacher Education (Vocational)					13			13
Transportation and Highway Engineering					1			1
Travel Services Marketing Operations							100	100
Veterinarian Assistant / Animal Health Technician						14		14
Veterinary Clinical Sciences (MS, PhD)	2							2
Veterinary Medicine (DVM)	21							21
Vocational Rehabilitation Counseling			4					4
Water Resources Engineering					1			1
Zoology, General		2						2
Totals	551	70	460	4,377	9,631	2,714	1,314	19,117



Work Skills Projection

In this section we use the VEC's occupational employment projections for the Washington, D.C. MSA, in combination with occupational skills profiles developed by ACT,¹ to identify the skill sets that will be required to fill projected annual job openings within the region. The skills categories addressed in this analysis are Applied Mathematics, Applied Technology, Listening, Locating Information, Observation, Reading for Information, Teamwork, and Writing. A description of each category, the skills levels associated with it, and the proportion of projected annual job openings that fall within each skill level follow.

Applied Mathematics

The *Applied Mathematics* assessment measures a person's skill in using mathematical reasoning to solve work-related problems. ACT defines the skills levels associated with this category as follows.

Level 3:

- Perform basic mathematical operations using whole numbers and decimals.
- Convert a number from one form into another using whole numbers, fractions, decimals, or percentages.
- Solve problems that are straightforward, involving a single type of mathematical operation.
- Translate easily from a verbal setup to a mathematical equation when all the information needed to solve the problem is provided in logical order and no unrelated information is included.

Level 4 (in addition to requirements for previous levels):

- Perform one or two mathematical operations using several positive or negative numbers.
- Add commonly known fractions, decimals, or percentages, or add three fractions that share a common denominator.
- Calculate averages, simple ratios, proportions, and rates, using whole numbers and decimals.

- Reorder verbal information before performing calculations.
- Determine which operations to perform and in what order.
- Read a simple chart or graph to obtain the information needed to solve a problem.

Level 5 (in addition to requirements for previous levels):

- Look up and calculate single-step conversions within English or non-English systems of measurement or between systems of measurement.
- Calculate using mixed units and several steps of logic.
- Calculate perimeters and areas of basic shapes.
- Calculate percentage discounts and markups.
- Determine what information, calculations, and unit conversions are needed to find a solution.

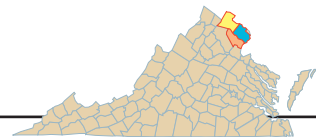
Level 6 (in addition to requirements for previous levels):

- Calculate using negative numbers, fractions, ratios, percentages, and mixed numbers.
- Calculate multiple rates for comparison or use in other calculations.
- Find basic areas and volumes of rectangular solids.
- Identify and correct errors in calculations.
- Solve problems involving considerable setup and multiple-step calculations or conversions.

Level 7 (in addition to requirements for previous levels):

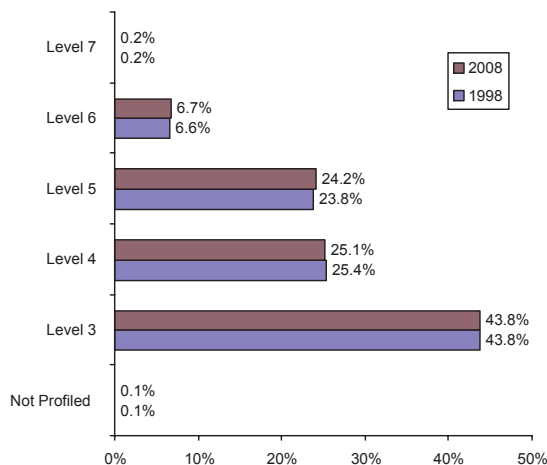
- Calculate using multiple steps of logic.
- Calculate multiple areas and the volumes of spheres, cylinders, and cones.
- Solve problems with more than one unknown.
- Solve problems involving nonlinear functions, such as rates of change.

¹ The occupational skills profiles used in this analysis were provided by ACT. ACT is an independent, non-profit organization that specializes in research and assessment related to education and work. These profiles are based on actual ACT *WorkKeys* assessments of thousands of employed individuals nationally. They represent the most comprehensive and current measure of the work skills required for specific occupations.

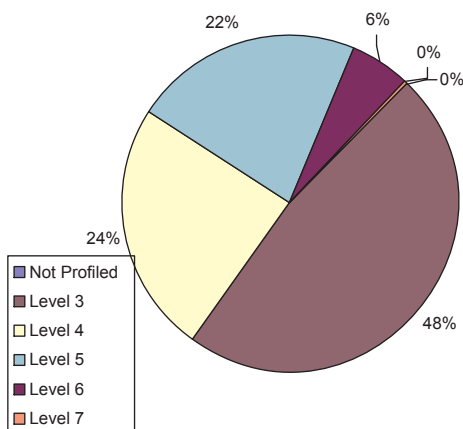


- Calculate by applying basic statistical concepts.
- Derive information needed to solve problems if incomplete or implicit information is presented.

The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Applied Mathematics* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 *Applied Mathematics* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Applied Mathematics



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Applied Mathematics

Applied Technology

The *Applied Technology* assessment measures a person's skill in using the basic principles of mechanics, electricity, fluid dynamics, and thermodynamics to solve problems with machines, equipment, and structures found in the workplace. ACT defines the skills levels associated with this category as follows.

Level 3:

- Understand the operation of basic hand tools, simple machine components, and uncomplicated systems, such as piping systems, simple electrical heaters, or other equipment found in the home, school, or workplace.
- Apply elementary principles underlying the operation of physical systems, such as the workings of plumbing components or simple electrical systems.

Level 4 (in addition to requirements for previous levels):

- Understand the operation of moderately complex tools, machines, and systems, such as appliances, pulley-driven equipment, or piping systems that carry more than one fluid.
- Apply elementary principles underlying the operation of physical systems, such as a block and tackle or cooling fins.

Level 5 (in addition to requirements for previous levels):

- Use the basic principles of mechanics, electricity, thermodynamics, and fluid dynamics in moderate and advanced applications.
- Understand complex machines and systems, such as the operation of gasoline engines, complex appliances, or an electrical system in a building.

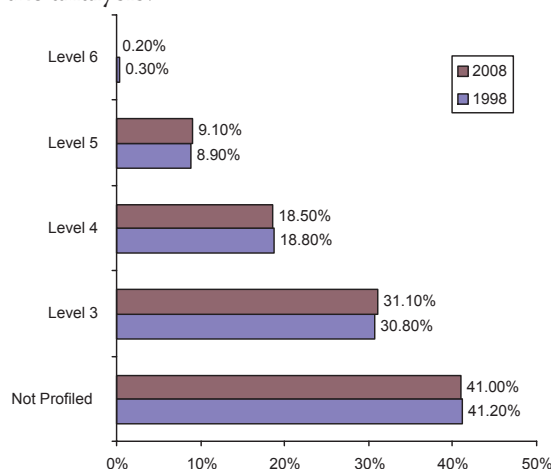
Level 6 (in addition to requirements for previous levels):

- Use principles of mechanics, electricity, thermodynamics, and fluid dynamics interacting in advanced applications such as air conditioning units.
- Troubleshoot complex systems in which a variety of mechanical, electrical, thermal, or flow faults are potential sources of difficult problems.

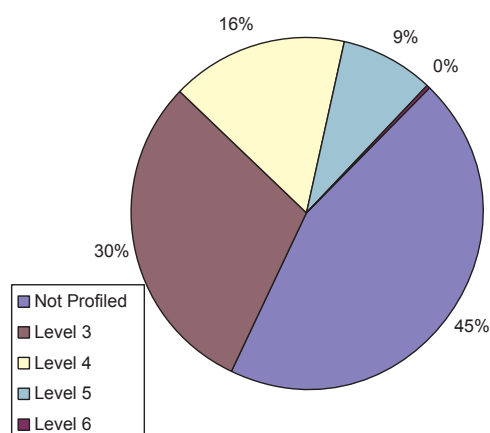
The following figure details the percentage of overall



jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Applied Technology* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 *Applied Technology* skills. The large “Not Profiled” proportion indicates that ACT has not profiled many of these occupations with respect to *Applied Technology* skills. As a result, it is not possible to include them in the analysis.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Applied Technology



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Applied Technology

Listening

The *Listening* portion of the *Listening and Writing* assessment measures a person’s skill in listening to and

conveying information. ACT defines the skills levels associated with this category as follows.

Level 1:

- Write down a small amount of useful information based on a spoken communication.
- Give clues to the gist of the situation or provide sources of further information, but do not include enough information to give the receiver a correct understanding of the situation described in the message.

Level 2 (in addition to requirements for previous levels):

- Correctly write down the basic ideas of a spoken message.
- Give a fair amount of useful information, but may miss some of the important details or incorrectly record some of the information.

Level 3 (in addition to requirements for previous levels):

- Listen to a spoken communication and record messages that are basically correct.
- Present all the primary details and the relationships among them correctly, but may miss one or two pieces of important information.

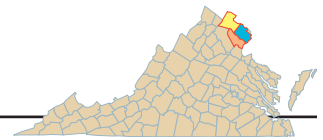
Level 4 (in addition to requirements for previous levels):

- Accurately convey the central idea of a spoken communication.
- Correctly record all the important information and the relationships among pieces of information, but may miss or incorrectly record some details or include irrelevant information.

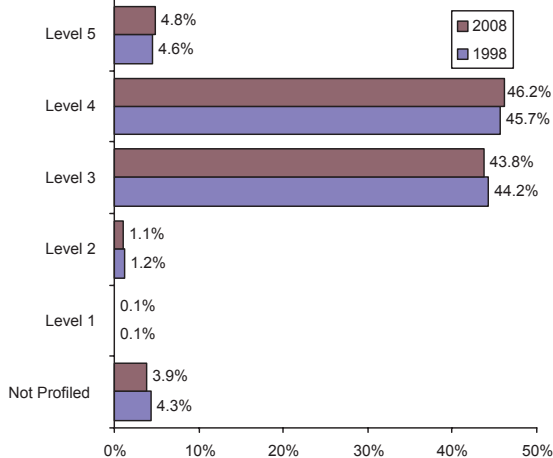
Level 5 (in addition to requirements for previous levels):

- Correctly record all the important information and the relationships among pieces of information from a spoken communication.
- Use supporting details to convey insight into the particular situation the message involves.

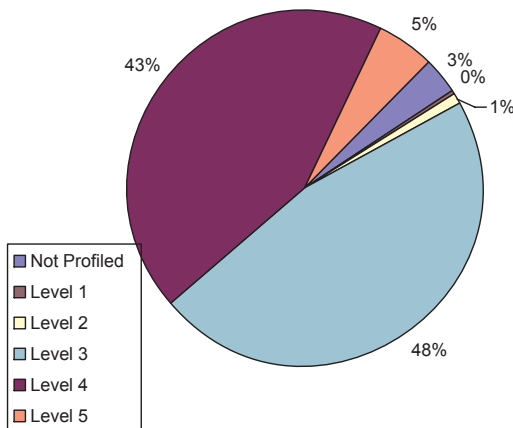
The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by



required *Listening* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 and Level 4 *Listening* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Listening



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Listening

Locating Information

The *Locating Information* assessment measures a person's skill in using workplace graphics such as diagrams, floor plans, tables, charts, graphs, forms, and instrument gauges. ACT defines the skills levels associated with this category as follows.

Level 3:

- Find one or two pieces of information in a graphic.
- Fill in one or two pieces of information that are missing from a graphic.

Level 4 (in addition to requirements for previous levels):

- Find several pieces of information in graphics.
- Summarize and/or compare information and trends in a single graphic.
- Summarize and/or compare information and trends among more than one graphic by determining the relationships among the graphics.

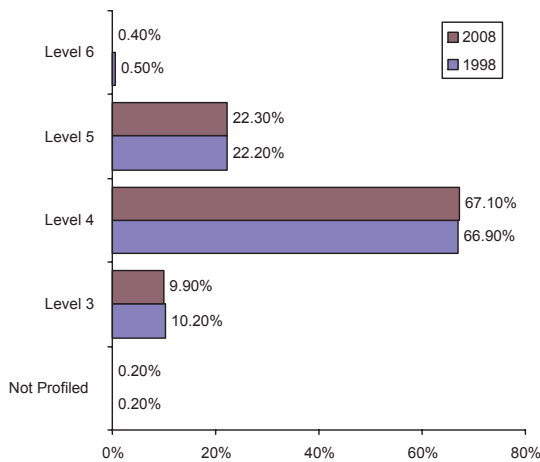
Level 5 (in addition to requirements for previous levels):

- Summarize and/or compare information and trends in a single graphic.
- Sort through distracting information to summarize and/or compare information and trends presented in more than one workplace graphic.

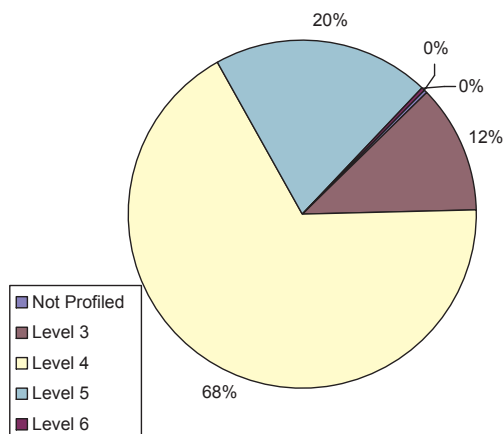
Level 6 (in addition to requirements for previous levels):

- Draw conclusions from the information presented in very detailed graphics.
- Apply information from these types of graphics to specific situations.
- Analyze data within these types of graphics to make decisions and/or predictions requiring judgments based on the information presented.

The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Locating Information* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the vast majority of jobs will require workers with Level 4 *Locating Information* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Locating Information



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Locating Information

Observation

The *Observation* assessment measures a person's skill at noticing details and paying attention to instructions and demonstrations. The following is a description of the skills levels associated with this area.

Level 3:

- Pay attention.
- Watch and listen to a strongly cued demonstration or set of instructions.

- Recall a few strongly reinforced details of a process or procedure.

Level 4:

- Sustain focused attention on the demonstrated instructions, process, or procedures.
- Select and attend to important details.
- Recall a few important, moderately reinforced details about the demonstrated process or procedure.

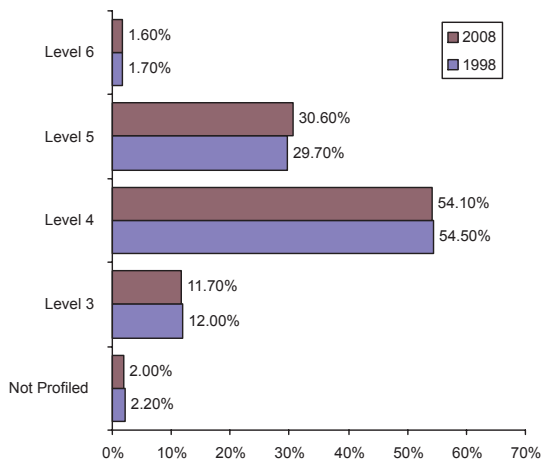
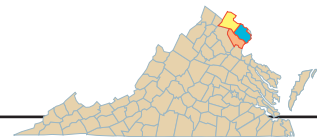
Level 5:

- Focus attention on and recall several important aspects of the information presented.
- Ignore irrelevant background information through selective attention to important details.
- Maintain attention to detail.
- Recall several important details about unfamiliar material.

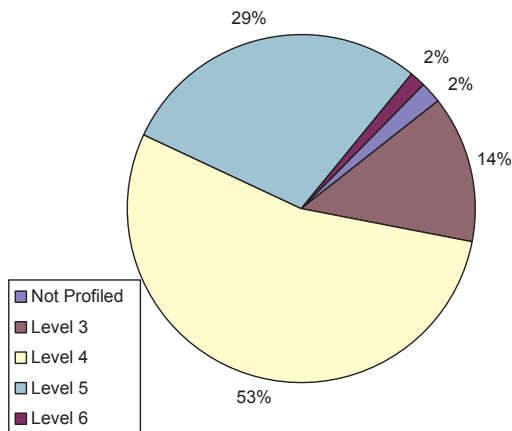
Level 6:

- Notice and remember several details that are relevant to the process or procedure being shown.
- Take in and recall incoming sensory information so it can be used to make predictions, comparisons, or evaluations.
- Visualize how a detail or task fits into the entire process or procedure demonstrated.
- Interpret if-then and cause-effect relationships.

The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Observation* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Observation* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Observation



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Observation

Reading for Information

The *Reading for Information* assessment measures a person's skill in reading and using work-related information including instructions, policies, memos, bulletins, notices, letters, manuals, and governmental regulations. ACT defines the skills levels associated with this category as follows.

Level 3:

- Identify uncomplicated key concepts and simple details.
- Recognize the proper placement of a step in a sequence of events, or the proper time to perform a task.

- Identify the meaning of a word that is defined within the document.
- Identify the meaning of a simple word that is not defined within the document.
- Recognize the application of instructions given in the document to situations that are also described in the document.

Level 4:

- Identify important details that are less obvious than those in Level 3.
- Recognize the application of more complex instructions, some of which involve several steps, to described situations.
- Recognize cause-effect relationships.
- Determine the meaning of words that are not defined in the document.

Level 5:

- Identify the paraphrased definition of a technical term or jargon that is defined in the document.
- Recognize the application of technical terms or jargon to stated situations.
- Recognize the definition of an acronym that is defined in the document.
- Identify the appropriate definition of a word with multiple meanings.
- Recognize the application of instructions from the document to new situations that are similar to those described in the document.
- Recognize the application of more complex instructions to described situations, including conditionals and procedures with multiple steps.

Level 6:

- Recognize the application of jargon or technical terms to new situations.
- Recognize the application of complex instructions to new situations.
- Recognize, from context, the less common meaning of a word with multiple meanings.
- Generalize from the document situations not described in the document.

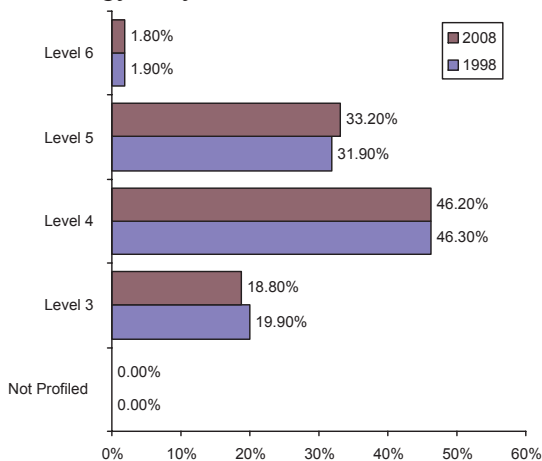


- Identify implied details.
- Explain the rationale behind a procedure, policy, or communication.
- Generalize from the document to a somewhat similar situation.

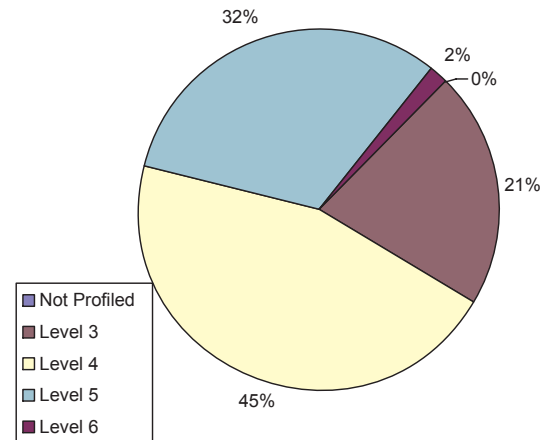
Level 7:

- Recognize the definitions of difficult, uncommon jargon or technical terms, based on the context of the reading materials.
- Figure out the general principles underlying described situations and apply them to situations neither described in nor completely similar to those in the document.

The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Reading for Information* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Reading for Information* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Reading for Information



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Reading for Information

Teamwork

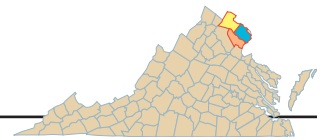
The *Teamwork* assessment measures a person's skill in choosing behaviors and/or actions that simultaneously support relationships within a team and lead toward the accomplishment of work tasks. The following is a description of the skills levels associated with this area.

Level 3:

- Identify team goals and ways to work with other team members to accomplish team goals.
- Recognize that a team is having problems finishing a task and identify the cause of those problems.
- Choose actions that actively support the ideas other team members have for accomplishing team goals.
- Recognize the need for trust and dependability in a team environment.

Level 4:

- Identify the organization of tasks and the time schedule that would help the team reach goals efficiently, creatively, and effectively.
- Select approaches that accept direction from other team members in order to complete tasks and to build and keep up good team relations.
- Identify behaviors that show appreciation for the personal and professional qualities of other team members and respect for their diversity.



- Recognize the need for commitment to quality and sensitivity to customers while pursuing the team goal.

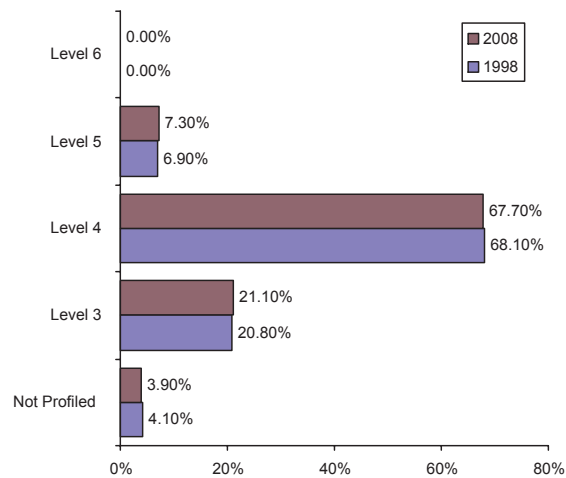
Level 5:

- Identify courses of action that give direction to other team members.
- Determine the best use of team talents to accomplish goals.
- Choose approaches that encourage other team members to improve relationships and/or complete tasks.
- Consider and evaluate the possible effects of alternative behaviors on both team relationships and the completion of tasks.

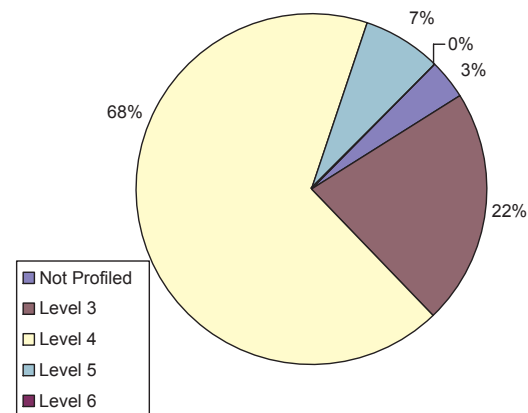
Level 6:

- Identify the focus of team activity and select a new focus if that would help the team meet its goals more effectively.
- Select approaches that show a willingness to give and take direction, as needed, to further team goals (e.g., recognize the organization of team members' tasks that would best serve the larger goals of the team).
- Choose approaches that encourage a team to act as a unit and reach agreement when discussing specific issues.
- Identify actions that would help manage differences of opinion between team members, moving the team toward its goals while valuing and supporting individual diversity.

The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Teamwork* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Teamwork* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Teamwork



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Teamwork

Writing

The *Writing* portion of the *Listening and Writing* assessment measures a person's skill in writing work-related messages. ACT defines the skills levels associated with this category as follows.

Level 1:

- Write messages in English that contain a large number of major grammatical, punctuation, spelling, and/or other mechanical errors making the messages very unclear and inconsistent with standard business English.



Level 2:

- Write messages that are generally understandable, but contain many errors in grammar, punctuation, and/or sentence structure making these messages somewhat difficult to comprehend.

Level 3:

- Write messages that are clear, but may include some incomplete sentences and/or errors in grammar and punctuation.

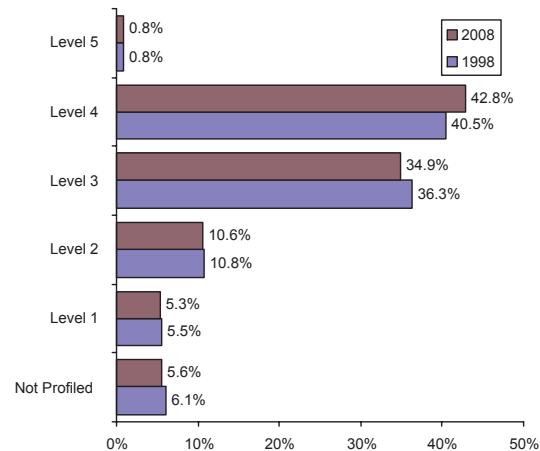
Level 4:

- Write messages that are clear and generally consistent with standard business English, but may contain a few minor errors in grammar and punctuation, and/or the writing style may lack clear organization and appropriate transitions.

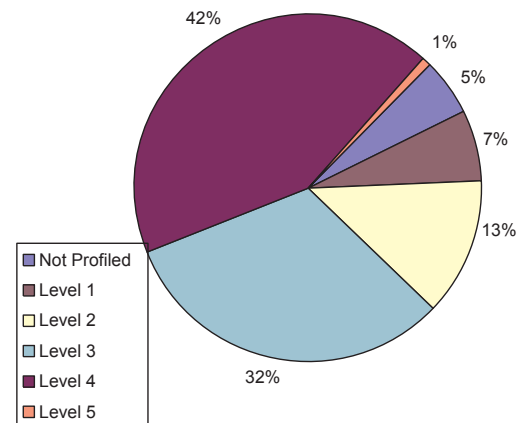
Level 5:

- Write messages that are clear and highly consistent with standard business English.
- Use good sentence structure with a smooth, logical style and no mechanical errors.

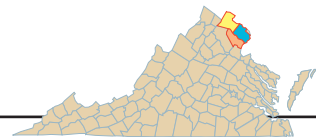
The following figure details the percentage of overall jobs in the Washington, D.C. MSA in 1998 and 2008 by required *Writing* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 and Level 4 *Writing* skills.



Proportion of Jobs in the Washington, D.C. MSA by Required Skill Level – Writing



Annual Openings in the Washington, D.C. MSA by Required Skill Level – Writing



Graduate Data

As a compliment to the prior two sections which detailed the likely demand for skilled workers in the region, this section provides data on the current supply

of graduates within WIA XI. These data reflect number of graduates, by institution, and by academic program for the 2002-2003 academic year.¹

Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
George Mason Univ	Area Studies, Other (05.0199)	0	0	0	6	0	0	0
George Mason Univ	Communications, General (09.0101)	0	0	0	0	0	2	0
George Mason Univ	Communications, Other (09.9999)	0	0	0	0	0	81	0
George Mason Univ	Computer and Information Sciences, General (11.0101)	0	0	0	183	0	98	0
George Mason Univ	Information Sciences and Systems (11.0401)	0	0	0	0	0	110	0
George Mason Univ	Counselor Education Counseling and Guidance Services (13.1101)	0	0	0	0	0	35	0
George Mason Univ	General Teacher Education, Other (13.1299)	0	0	0	0	0	0	13
George Mason Univ	Health Teacher Education (13.1307)	0	0	0	30	0	0	0
George Mason Univ	Physical Education Teaching and Coaching (13.1314)	0	0	0	14	0	15	0
George Mason Univ	Special Education, General (13.1001)	0	0	0	0	0	81	0
George Mason Univ	Education Administration and Supervision, General (13.0401)	0	0	0	0	0	129	0
George Mason Univ	Curriculum and Instruction (13.0301)	0	0	0	0	0	304	0
George Mason Univ	Education, General (13.0101)	0	0	0	0	0	0	21
George Mason Univ	Teaching English as a Second Language/Foreign Language (13.1401)	0	0	0	0	0	0	0
George Mason Univ	Engineering, General (14.0101)	0	0	0	0	0	0	0
George Mason Univ	Industrial/Manufacturing Engineering (14.1701)	0	0	0	0	0	9	0
George Mason Univ	Systems Engineering (14.2701)	0	0	0	20	0	32	0
George Mason Univ	Engineering, Other (14.9999)	0	0	0	0	0	0	27
George Mason Univ	Civil Engineering, Other (14.0899)	0	0	0	17	0	7	0
George Mason Univ	Computer Engineering (14.0901)	0	0	0	15	0	12	0
George Mason Univ	Electrical, Electronics and Communication Engineering (14.1001)	0	0	0	30	0	39	3
George Mason Univ	Foreign Languages and Literatures, General (16.0101)	0	0	0	30	0	14	0

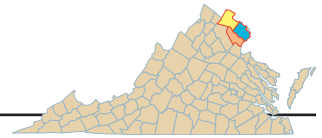
¹ Source: State Council of Higher Education for Virginia, Research Report C1, Completion Summary. Where data for 2002-2003 were not available, 2001-2002 data have been used.



Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
George Mason Univ	Juridical Science/Legal Specialization(LL.M.,M.C.L.,J.S.D./S.J.D.) (22.0104)	0	0	0	0	0	1	0
George Mason Univ	Law and Legal Studies, Other (22.0199)	0	0	0	0	0	5	0
George Mason Univ	Law (LL.B., J.D.) (22.0101)	0	0	0	0	183	0	0
George Mason Univ	English Language and Literature, General (23.0101)	0	0	0	162	0	0	0
George Mason Univ	English Creative Writing (23.0501)	0	0	0	0	0	25	0
George Mason Univ	English Literature (British and Commonwealth) (23.0801)	0	0	0	0	0	45	0
George Mason Univ	Speech and Rhetorical Studies (23.1001)	0	0	0	273	0	0	0
George Mason Univ	Liberal Arts and Sciences/Liberal Studies (24.0101)	0	0	0	138	0	0	0
George Mason Univ	Humanities/Humanistic Studies (24.0103)	0	0	0	0	0	0	5
George Mason Univ	Liberal Art and Sciences, General Studies and Humanities, Other (24.0199)	0	0	0	144	0	0	0
George Mason Univ	Biological Sciences/Life Sciences, Other (26.9999)	0	0	0	0	0	2	12
George Mason Univ	Biology, General (26.0101)	0	0	0	120	0	13	0
George Mason Univ	Mathematical Statistics (27.0501)	0	0	0	0	0	13	0
George Mason Univ	Mathematics (27.0101)	0	0	0	18	0	5	0
George Mason Univ	Multi/Interdisciplinary Studies, Other (30.9999)	0	0	0	2	0	15	0
George Mason Univ	Peace and Conflict Studies (30.0501)	0	0	0	0	0	26	9
George Mason Univ	Mathematics and Computer Science (30.0801)	0	0	0	0	0	9	12
George Mason Univ	Gerontology (30.1101)	0	0	0	0	0	0	0
George Mason Univ	Philosophy (38.0101)	0	0	0	11	0	0	0
George Mason Univ	Physics, General (40.0801)	0	0	0	6	0	0	0
George Mason Univ	Geology (40.0601)	0	0	0	6	0	0	0
George Mason Univ	Chemistry, General (40.0501)	0	0	0	15	0	2	0
George Mason Univ	Physics, Other (40.0899)	0	0	0	0	0	4	0
George Mason Univ	Psychology, General (42.0101)	0	0	0	265	0	49	16
George Mason Univ	Law Enforcement/Police Science (43.0107)	0	0	0	73	0	0	0

Education Profile

WIA XI



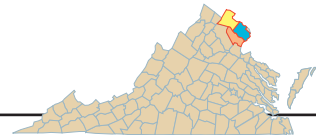
Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
George Mason Univ	Public Policy Analysis (44.0501)	0	0	0	0	0	6	14
George Mason Univ	Social Work (44.0701)	0	0	0	26	0	0	0
George Mason Univ	Public Administration (44.0401)	0	0	0	21	0	74	1
George Mason Univ	Public Administration and Services, Other (44.9999)	0	0	0	0	0	4	0
George Mason Univ	Economics, General (45.0601)	0	0	0	102	0	9	14
George Mason Univ	Anthropology (45.0201)	0	0	0	26	0	0	0
George Mason Univ	Geography (45.0701)	0	0	0	6	0	12	0
George Mason Univ	History, General (45.0801)	0	0	0	73	0	33	0
George Mason Univ	International Relations and Affairs (45.0901)	0	0	0	4	0	70	0
George Mason Univ	Political Science, General (45.1001)	0	0	0	9	0	0	0
George Mason Univ	Political Science and Government, Other (45.1099)	0	0	0	156	0	0	0
George Mason Univ	Sociology (45.1101)	0	0	0	58	0	8	0
George Mason Univ	Visual and Performing Arts (50.0101)	0	0	0	19	0	9	0
George Mason Univ	Music - General Performance (50.0903)	0	0	0	26	0	0	0
George Mason Univ	Music, Other (50.0999)	0	0	0	0	0	9	0
George Mason Univ	Music, General (50.0901)	0	0	0	0	0	12	0
George Mason Univ	Art, General (50.0701)	0	0	0	80	0	0	0
George Mason Univ	Drama/Theater Arts, General (50.0501)	0	0	0	22	0	0	0
George Mason Univ	Dance (50.0301)	0	0	0	9	0	2	0
George Mason Univ	Hospital/Health Facilities Administration (51.0702)	0	0	0	0	0	0	0
George Mason Univ	Health System/Health Services Administration (51.0701)	0	0	0	0	0	16	0
George Mason Univ	Medical Technology (51.1005)	0	0	0	5	0	0	0
George Mason Univ	Nursing (R.N. Training) (51.1601)	0	0	0	168	0	72	5
George Mason Univ	Health Professions and Related Sci- ences, Other (51.9999)	0	0	0	19	0	0	0
George Mason Univ	Management Information Systems and Business Data Processing, General (52.1201)	0	0	0	0	0	0	0
George Mason Univ	Business Marketing and Marketing Management (52.1401)	0	0	0	88	0	0	0
George Mason Univ	Business Management and Administra- tive Services, Other (52.9999)	0	0	0	396	0	0	0



Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
George Mason Univ	Business Administration and Management, General (52.0201)	0	0	0	83	0	65	0
George Mason Univ	Business, General (52.0101)	0	0	0	3	0	0	0
George Mason Univ	Business Administration and Management, Other (52.0299)	0	0	0	0	0	28	0
George Mason Univ	Accounting (52.0301)	0	0	0	122	0	0	0
George Mason Univ	Finance, General (52.0801)	0	0	0	112	0	0	0
Marymount Univ	Fashion Merchandising (08.0102)	0	0	0	14	0	0	0
Marymount Univ	Communications, General (09.0101)	0	0	0	28	0	0	0
Marymount Univ	Computer and Information Sciences, General (11.0101)	0	0	0	41	0	0	0
Marymount Univ	Computer Science (11.0701)	0	0	0	6	0	7	0
Marymount Univ	Educational Psychology (13.0802)	0	0	0	12	0	0	0
Marymount Univ	Education Administration and Supervision, Other (13.0499)	0	0	0	0	0	11	0
Marymount Univ	Elementary Teacher Education (13.1202)	0	0	0	0	0	65	0
Marymount Univ	Secondary Teacher Education (13.1205)	0	0	0	0	0	8	0
Marymount Univ	Education of the Specific Learning Disabled (13.1011)	0	0	0	0	0	11	0
Marymount Univ	Counselor Education Counseling and Guidance Services (13.1101)	0	0	0	0	0	11	0
Marymount Univ	Teaching English as a Second Language/Foreign Language (13.1401)	0	0	0	0	0	9	0
Marymount Univ	Paralegal/Legal Assistant (22.0103)	0	0	0	5	0	15	0
Marymount Univ	English Language and Literature, General (23.0101)	0	0	0	10	0	1	0
Marymount Univ	Liberal Arts and Sciences/Liberal Studies (24.0101)	0	0	3	33	0	0	0
Marymount Univ	Biology, General (26.0101)	0	0	0	23	0	0	0
Marymount Univ	Miscellaneous Biological Specializations, Other (26.0699)	0	0	0	1	0	0	0
Marymount Univ	Mathematics (27.0101)	0	0	0	3	0	0	0
Marymount Univ	Parks, Recreation and Leisure Studies (31.0101)	0	0	0	4	0	0	0
Marymount Univ	Sport and Fitness Administration/Management (31.0504)	0	0	0	2	0	0	0

Education Profile

WIA XI



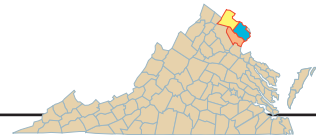
Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
Marymount Univ	Athletic Training and Sports Medicine (31.0503)	0	0	0	1	0	0	0
Marymount Univ	Religion/Religious Studies (38.0201)	0	0	0	2	0	0	0
Marymount Univ	Psychology, General (42.0101)	0	0	0	2	0	0	0
Marymount Univ	Counseling Psychology (42.0601)	0	0	0	0	0	28	0
Marymount Univ	Industrial and Organizational Psychol- ogy (42.0901)	0	0	0	5	0	0	0
Marymount Univ	Social Psychology (42.1601)	0	0	0	29	0	0	0
Marymount Univ	Psychology, Other (42.9999)	0	0	0	0	0	38	0
Marymount Univ	Sociology (45.1101)	0	0	0	10	0	0	0
Marymount Univ	Political Science, General (45.1001)	0	0	0	8	0	0	0
Marymount Univ	Economics, General (45.0601)	0	0	0	2	0	0	0
Marymount Univ	Criminology (45.0401)	0	0	0	15	0	0	0
Marymount Univ	History, General (45.0801)	0	0	0	11	0	0	0
Marymount Univ	Graphic Design, Commercial Art and Illustration (50.0402)	0	0	0	27	0	0	0
Marymount Univ	Fashion Design and Illustration (50.0407)	0	0	0	3	0	0	0
Marymount Univ	Interior Design (50.0408)	0	0	0	23	0	9	0
Marymount Univ	Art, General (50.0701)	0	0	0	7	0	0	0
Marymount Univ	Physical Therapy (51.2308)	0	0	0	0	0	22	0
Marymount Univ	Health Professions and Related Sci- ences, Other (51.9999)	0	0	0	0	0	5	0
Marymount Univ	Nursing (R.N. Training) (51.1601)	0	0	76	0	0	0	0
Marymount Univ	Nursing Administration (Post-R.N.) (51.1602)	0	0	0	17	0	1	0
Marymount Univ	Nursing, Family Practice (Post-R.N.) (51.1605)	0	0	0	0	0	10	0
Marymount Univ	Nursing, Other (51.1699)	0	0	0	0	0	4	0
Marymount Univ	Health System/Health Services Administration (51.0701)	0	0	0	1	0	11	0
Marymount Univ	Business Administration and Manage- ment, General (52.0201)	0	0	0	23	0	91	0
Marymount Univ	Business Administration and Manage- ment, Other (52.0299)	0	0	0	2	0	0	0
Marymount Univ	Accounting (52.0301)	0	0	0	3	0	0	0
Marymount Univ	Finance, General (52.0801)	0	0	0	11	0	0	0



Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
Marymount Univ	Human Resources Management (52.1001)	0	0	0	5	0	28	0
Marymount Univ	Business Marketing and Marketing Management (52.1401)	0	0	0	14	0	0	0
Marymount Univ	Business Management and Administrative Services, Other (52.9999)	0	0	0	0	0	38	0
Marymount Univ	Organizational Behavior Studies (52.1003)	0	0	0	0	0	36	0
Marymount Univ	International Business (52.1101)	0	0	0	10	0	0	0
Marymount Univ	Management Information Systems and Business Data Processing, General (52.1201)	0	0	0	0	0	26	0
Northern Virginia CC	Agricultural Business and Management, General (01.0101)	0	0	12	0	0	0	0
Northern Virginia CC	Agricultural Business and Management, Other (01.0199)	0	0	27	0	0	0	0
Northern Virginia CC	Radio and Television Broadcasting Tech./Technician (10.0104)	0	9	0	0	0	0	0
Northern Virginia CC	Computer and Information Sciences, General (11.0101)	0	0	82	0	0	0	0
Northern Virginia CC	Special Education, Other (13.1099)	0	2	20	0	0	0	0
Northern Virginia CC	Engineering, General (14.0101)	0	0	32	0	0	0	0
Northern Virginia CC	Architectural Engineering Tech./Technician (15.0101)	0	12	25	0	0	0	0
Northern Virginia CC	Civil Engineering/Civil Tech./Technician (15.0201)	0	0	5	0	0	0	0
Northern Virginia CC	Electrical and Electronic Engin.-Related Technol./Technicians, Other (15.0399)	0	5	3	0	0	0	0
Northern Virginia CC	Environmental Control Technol./Technicians, Other (15.0599)	0	4	4	0	0	0	0
Northern Virginia CC	Mechanical Engineering-Related Technol./Technicians, Other (15.0899)	0	1	0	0	0	0	0
Northern Virginia CC	Engineering-Related Technol./Technicians, Other (15.9999)	0	0	1	0	0	0	0
Northern Virginia CC	Liberal Arts and Sciences/Liberal Studies (24.0101)	0	0	216	0	0	0	0
Northern Virginia CC	General Studies (24.0102)	0	0	673	0	0	0	0
Northern Virginia CC	Biological and Physical Sciences (30.0101)	0	0	72	0	0	0	0

Education Profile

WIA XI

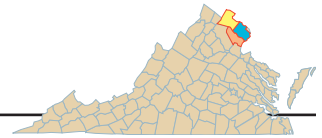


Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	BA	1st Prof.	MA	PH.D.
Northern Virginia CC	Parks, Recreation and Leisure Facilities Management (31.0301)	0	0	5	0	0	0	0
Northern Virginia CC	Protective Services, Other (43.9999)	0	42	80	0	0	0	0
Northern Virginia CC	Vehicle and Mobile Equipment Mechanics and Repairers, Other (47.0699)	0	8	32	0	0	0	0
Northern Virginia CC	Graphic and Printing Equipment Operator, General (48.0201)	0	0	55	0	0	0	0
Northern Virginia CC	Transportation and Materials Moving Workers, Other (49.9999)	0	0	1	0	0	0	0
Northern Virginia CC	Visual and Performing Arts (50.0101)	0	0	13	0	0	0	0
Northern Virginia CC	Interior Design (50.0408)	0	0	7	0	0	0	0
Northern Virginia CC	Design and Applied Arts, Other (50.0499)	0	11	0	0	0	0	0
Northern Virginia CC	Visual and Performing Arts, Other (50.9999)	0	0	19	0	0	0	0
Northern Virginia CC	Mental Health Services, Other (51.1599)	505	3	11	0	0	0	0
Northern Virginia CC	Emergency Medical Tech./Technician (51.0904)	0	0	13	0	0	0	0
Northern Virginia CC	Medical Records Tech./Technician (51.0707)	0	0	8	0	0	0	0
Northern Virginia CC	Surgical/Operating Room Technician (51.0909)	0	9	0	0	0	0	0
Northern Virginia CC	Respiratory Therapy Technician (51.0908)	0	0	6	0	0	0	0
Northern Virginia CC	Medical Laboratory Technician (51.1004)	0	0	6	0	0	0	0
Northern Virginia CC	Medical Radiologic Tech./Technician (51.0907)	0	0	25	0	0	0	0
Northern Virginia CC	Dental Hygienist (51.0602)	0	0	18	0	0	0	0
Northern Virginia CC	Nursing (R.N. Training) (51.1601)	0	0	106	0	0	0	0
Northern Virginia CC	Physical Therapy (51.2308)	0	0	14	0	0	0	0
Northern Virginia CC	Business, General (52.0101)	0	70	134	0	0	0	0
Northern Virginia CC	Business Administration and Management, General (52.0201)	0	0	398	0	0	0	0
Northern Virginia CC	Administrative Assistant/Secretarial Science, General (52.0401)	0	9	62	0	0	0	0
Northern Virginia CC	Management Information Systems and Business Data Processing, General (52.1201)	0	10	285	0	0	0	0



WIA XI Training Providers List

Provider Name	Contact Information	List of Programs/Courses
Ana Visage Academy	10130-B Colvin Run Road Great Falls VA 22066 Phone: 703-759-2200 Email: anavisage@hotmail.com	Electrolysis Esthetics Massage Therapy
Automation Research Systems	4480 King Street Suite 600 Alexandria VA 22302 Phone: 703-820-9000 Email: scoburn@arslimited.com Web: www.arslimitedtraining.com	CCDA CCDP CCNA CCNP Cisco Certified Security Specialist
Aviation Institute of Maintenance	10601 Observation Road Manassas VA 20110 Phone: 703-257-5515 Email: directoramm@tidetech.com	Aviation Maintenance Technician
Barber College	13195 Gordon Boulevard Woodbridge VA 22191 Phone: 703-490-7393	Barbering
Career Technology Center	6269 Leesburg Pike Suite 106/107 Falls Church VA 22044 Phone: 703-532-8898 Email: profhaq@yahoo.com	A+ Diploma in Computer Programming Diploma in Desktop Publishing Diploma in Office Skills Help Desk Information Technology Internet Technology MCSE 2000 Networking Word Processing
Columbia School of Broadcasting	3947 University Drive, 2nd Floor Fairfax VA 22030 Phone: 703-591-6000 Web: www.csbamerica.com	Basic Radio Production Internet Broadcasting, Introduction Radio Announcing Radio Announcing (Spanish) Radio Play-By-Play Sportscasting Television Announcing Workshop
Computer Education Services Corporation	1430 Spring Hill Road Suite 600 Mc Lean VA 22102 Phone: 703-883-0616 Email: nsites@computeredservices.com Web: www.computeredservices.com	A+ Help Desk Analyst MS Windows Elective Course Package NetWare 5.1 CNE Prep Program Network + Windows 2000 Core Program Windows 2000 MCSA Program
Computer Institute	7202 Arlington Blvd. Falls Church VA 22042 Phone: 703-849-0099 Web: www.trainus.com	A Plus CCNA - Cisco Certified Network Associate CNA - Certified Network Administrator MCSE 2000 - Microsoft Certified Systems Engineer ODBA - Oracle Database Administrator Oracle Certified Developer Web Designer/Developer



WIA XI Training Providers List

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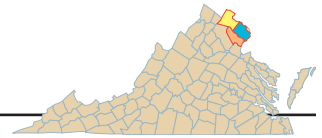
Provider Name	Contact Information	List of Programs/Courses
Computer Training Depot	9201 Church Street Manassas VA 20110 Phone: 703-331-3173 Web: www.computertrainingdepot.com	Computer Training, Customized Microsoft Certified Systems Engineer STARS
CorTechs Inc	5900 Centreville Road, Suite 208 Centreville VA 20121-2425 Phone: 703-968-7021 Email: echapman@cortechs.com Web: www.cortechs.com	Advanced WinRunner QuickTest for R3/SAP QuickTest Professional 5.5 TestSuite 7.0 (WinRunner, TestDirector) Topaz Scripting
Creative Learning Institute Inc	5613 Leesburg Pike Suite 56 Falls Church VA 22041 Phone: 703-575-8500 Email: ajama@computerlearning.net Web: www.computerlearning.net	A + Certification Certified Novell Administrator Certified Novell Engineer Cisco Certified Network Associate Cisco Certified Network Professional Microsoft Certified Professional Microsoft Certified Systems Administrator Microsoft Certified Systems Engineer Microsoft Office Microsoft Project Manager Network + Certification Oracle Database Administrator Small Business Server



WIA XI Training Providers List

(continued)

Provider Name	Contact Information	List of Programs/Courses
Fairfax Public Schools Adult and Community Education	5775 Spindle Court Centreville VA 20121 Phone: 703-227-2203 Email: bmoore@fcps.edu Web: www.fcps.edu/adult.htm	Access - Levels 1 and 2 Accounting - Parts A and B Accounting Assistant Administrative Assistant Basic Emergency Medical Technician Building Maintenance Carpentry Computer Keyboarding - Levels 1, 2 and 3 Copper Based Category 5 Network Cabling Cosmetology Dental Assistant EKG Technician Electrician Excel - Levels 1 and 2 Fiber Optic Certification Heating Ventilation and Air Conditioning Intro to Powerpoint Machinist Medical Administrative Assistant Medical Assistant Certification Medical Insurance Biller Microsoft Office - Levels 1 and 2 Ophthalmic Assistant PageMaker Painting Peachtree Accounting Pharmacy Technician Phlebotomy Training Physical Therapy Aide Plumbing Professional Activity Director Professional Receptionist Property Maintenance Technician Surveying Using Quickbooks ProWeb Development Word 2000 Word Processing/Graphics Technician
George Mason University	4400 University Drive Fairfax VA 22030 Phone: 703-993-2440 Web: www.gmu.edu/	College Courses
George Washington University Aviation Institute	20101 Academic Way Suite 333 Ashburn VA 20147 Phone: 703-726-8382 Email: vahid@seas.gwu.edu Web: www.gwvirginia.gwu.edu/academics	Aviation Safety and Security Certificate



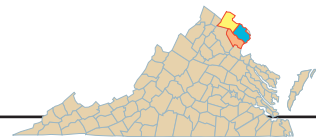
WIA XI Training Providers List (continued)

Provider Name	Contact Information	List of Programs/Courses
Global Computer Training Center	6551 Loisdale Court Suite 150 Springfield VA 22150 Phone: 703-921-9000 Email: dshrestha@gc-training.com Web: www.gc-training.com	A+ CCNA MCSE 2000 MOUS Network + Oracle DBA Web Development
Inspection Training Associates	2001 Center St. Manassas VA 20110 Phone: 800-323-9235 Email: kimi@homeinspection.com Web: Learn2inspect.com	Fast Track #4 Residential Inspection #1
Inspection Training Associates	1016 South Tremont Street Manassas VA 92054 Phone: 800-323-9235 Web: www.learn2inspect.com	Home Inspection
ISC Squared Institute	1964 Gallows Road Suite 210 Vienna VA 22182 Phone: 703-891-6781 Email: rwebb@isc2.org Web: www.isc2.org	Certified Information Systems Security Professional Systems Security Certified Practitioner
New Horizons Computer Learning Center of Washington D.C.	2000 Corporate Ridge Suite 110 McLean VA 22102 Phone: 703-749-4030 Email: john.muller@newhorizons.com Web: www.newhorizons.com	A + Certification Microsoft Certified Systems Administrator Microsoft Certified Systems Engineer
Nextec Inc	14524 Potomac Mills Road Woodbridge VA 22192 Phone: 703-492-8881 Email: www.vinay@nextecinc.com Web: www.nextecinc.com	A + Cisco Certified Network Associate E-Commerce Microsoft Certified Systems Engineer Network + Oracle Certified Program Application Developer Oracle Database Administrator Web Design Web Master
Northern Virginia Community College - Annandale Campus	8333 Little River Turnpike Annandale VA 22003-3796 Phone: 703-323-3168 Web: www.nvcc.vccs.edu/annandale	College Courses
Northern Virginia Community College - Loudon Campus	1000 Harry Flood Byrd Highway Sterling VA 20164 Phone: 703-450-2551 Web: www.nv.cc.va.us/loudoun	College Courses
Northern Virginia Community College - Manassas Campus	6901 Sudley Road Manassas VA 20109 Phone: 703-257-6630 Web: www.nvcc.vccs.edu/manassas	College Courses



WIA XI Training Providers List (continued)

Provider Name	Contact Information	List of Programs/Courses
Northern Virginia Community College - Woodbridge Campus	15200 Neabsco Road Woodbridge VA 22191-4099 Phone: 703-878-5700 Web: www.nvcc.vccs.edu/woodbridge	College Courses
Northern Virginia Family Service	6315 Backlick Road, 3rd Floor Springfield VA 22046 Phone: 703-533-9727 Web: www.nvfs.org	Construction Training Opportunities Program #341 Training Futures, Intern Service
Not Furlong Temps	22510 Sterling Boulevard Sterling VA 20164 Phone: 703-481-9600 Email: notfurlongtemps@aol.com	Medical Technician Training
PC Power Computer Training Center	10560 Main St., Suite 405 Fairfax VA 22030 Phone: 703-277-1900 Email: computerpctrain@aol.com	Access Computer Fundamentals Excel Frontpage Internet Class Outlook Powerpoint Publisher Quickbooks 2000 Windows 98 Word - (Microsoft Software)
Prince William County Schools	14800 Joplin Road Manassas VA 20112 Phone: 703-791-7357 Email: sneedb@pwcs.edu	English for Speakers of Other Languages GED Preparation National External Diploma Program
Richard Milburn High School	17902 Main Street Dumfries VA 22026 Phone: 703-221-4089	RMHS Diploma
Rockwell University	1593 Spring Hill Road Suite 610 Vienna VA 22182 Phone: 703-556-4375 Email: shaundugan@hotmail.com Web: www.rockwell.edu	A+ MCSE Microsoft Office User II MS Officer User I Network+ Novice MS User Oracle Forms Oracle Reports Oracle SQL Web Languages

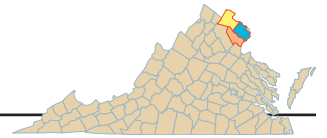


Provider Name	Contact Information	List of Programs/Courses
Stratford College	7777 Leesburg Pike Falls Church VA 22043 Phone: 703-821-8570 Web: www.stratford.edu	AAS Advanced Culinary Arts AAS Business Administration AAS Computer Programming AAS Enterprise Network Management AAS Hotel and Event Management Advanced Culinary Arts Diploma Advanced Culinary Arts Professional BUSA 10 Business Administration CISD01 Client/Server Programming Client/Server Programming Diploma Computer Programming Enterprise Network Professional Enterprise Network Professional Diploma HOSA 10 Hotel & Event Management
System and Information Services Corporation	8150 Leesburg Pike Suite 201 Vienna VA 22182 Phone: 703-848-0500 Email: sisc_info@yahoo.com	OCP9iSCSA
Three Soft USA	7409 Little River Turnpike 2nd Floor Annandale VA 22003 Phone: 703-914-1410 Email: isandlia@3softusa.com Web: www.3softusa.com	A + Certified Information System Security Professional Certified Internet Webmaster Cisco Certified Network Associate E Commerce Microsoft Certified System Engineer Microsoft Office Network + Oracle Certified Developer Oracle Database Administrator Web Design
University of VA School of Continuing and Professional Edu	7054 Haycock Road Falls Church VA 22043 Phone: 703-536-1100 Email: cap5e@virginia.edu Web: www.uvace.virginia.edu/northern	Classroom Technology Applications Certificate
VA School of Pet Grooming	8641 Sudley Road Manassas VA 20114 Phone: 703-361-3868 Email: peterperretta@aol.com	All Breed Grooming



V. Summary and Conclusions

Population trends in WIA XI, as in other parts of the United States, are currently dominated by the aging of the baby-boom generation. Between 2000 and 2010 this demographic phenomena will cause a major increase in the 55 and over population within the region. Another significant trend within WIA XI has to do with increasing employment in Services. It can be anticipated that employment increases in the Service sector – specifically, technology health care and education – will drive much of the demand for trained workers between 1998 and 2008.



Average Weekly Wage

Fairfax County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	1,030
AGRICULTURE	297
MINING	D
UTILITIES	1,216
CONSTRUCTION	906
MANUFACTURING	1,061
TRADE-WHOLESALE	1,583
TRADE-RETAIL	541
TRANSPORTATION	683
INFORMATION	1,531
FINANCE/INSURNC	1,626
REAL ESTATE	962
PROF/TECH SERV	1,465
MANAGMNT OF COS	1,922
ADMIN/WASTE SER	621
EDUCATIONAL SER	630
HEALTH CARE	804
ARTS/ENTER/REC	364
ACCOMMDATN/FOOD	321
OTHER SERVICES	686
GOVT TOTAL	908
GOVT FEDERAL	1,183
GOVT STATE	767
GOVT LOCAL	828
UNCLASSIFIED	0

Loudoun County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	918
AGRICULTURE	521
MINING	1,130
UTILITIES	D
CONSTRUCTION	783
MANUFACTURING	995
TRADE-WHOLESALE	1,061
TRADE-RETAIL	478
TRANSPORTATION	738
INFORMATION	2,108
FINANCE/INSURNC	1,076
REAL ESTATE	579
PROF/TECH SERV	1,219
MANAGMNT OF COS	1,522
ADMIN/WASTE SER	617
EDUCATIONAL SER	642
HEALTH CARE	680
ARTS/ENTER/REC	1,630
ACCOMMDATN/FOOD	310
OTHER SERVICES	630
GOVT TOTAL	899
GOVT FEDERAL	1,296
GOVT STATE	595
GOVT LOCAL	751
UNCLASSIFIED	267

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.



Average Weekly Wage

Prince William County

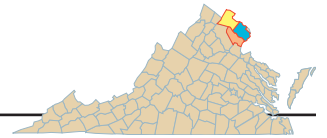
INDUSTRY SECTOR	2002 (\$)
****TOTAL****	616
AGRICULTURE	608
MINING	D
UTILITIES	D
CONSTRUCTION	753
MANUFACTURING	762
TRADE-WHOLESALE	903
TRADE-RETAIL	443
TRANSPORTATION	599
INFORMATION	829
FINANCE/INSURNC	892
REAL ESTATE	652
PROF/TECH SERV	1,068
MANAGMNT OF COS	1,057
ADMIN/WASTE SER	426
EDUCATIONAL SER	379
HEALTH CARE	628
ARTS/ENTER/REC	258
ACCOMMDATN/FOOD	241
OTHER SERVICES	508
GOVT TOTAL	732
GOVT FEDERAL	923
GOVT STATE	589
GOVT LOCAL	689
UNCLASSIFIED	0

Fairfax city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	830
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	796
MANUFACTURING	737
TRADE-WHOLESALE	898
TRADE-RETAIL	642
TRANSPORTATION	847
INFORMATION	1,750
FINANCE/INSURNC	1,141
REAL ESTATE	539
PROF/TECH SERV	1,285
MANAGMNT OF COS	1,558
ADMIN/WASTE SER	630
EDUCATIONAL SER	1,082
HEALTH CARE	649
ARTS/ENTER/REC	210
ACCOMMDATN/FOOD	290
OTHER SERVICES	689
GOVT TOTAL	964
GOVT FEDERAL	1,078
GOVT STATE	739
GOVT LOCAL	973
UNCLASSIFIED	0

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.



Average Weekly Wage

Falls Church city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	931
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	815
MANUFACTURING	824
TRADE-WHOLESALE	1,251
TRADE-RETAIL	609
TRANSPORTATION	462
INFORMATION	1,076
FINANCE/INSURNC	860
REAL ESTATE	548
PROF/TECH SERV	1,331
MANAGMNT OF COS	D
ADMIN/WASTE SER	454
EDUCATIONAL SER	751
HEALTH CARE	801
ARTS/ENTER/REC	306
ACCOMMDATN/FOOD	297
OTHER SERVICES	661
GOVT TOTAL	1,257
GOVT FEDERAL	1,400
GOVT STATE	742
GOVT LOCAL	710
UNCLASSIFIED	0

Manassas city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	800
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	772
MANUFACTURING	968
TRADE-WHOLESALE	1,107
TRADE-RETAIL	528
TRANSPORTATION	762
INFORMATION	910
FINANCE/INSURNC	894
REAL ESTATE	567
PROF/TECH SERV	1,479
MANAGMNT OF COS	D
ADMIN/WASTE SER	532
EDUCATIONAL SER	617
HEALTH CARE	706
ARTS/ENTER/REC	250
ACCOMMDATN/FOOD	271
OTHER SERVICES	523
GOVT TOTAL	819
GOVT FEDERAL	982
GOVT STATE	730
GOVT LOCAL	766
UNCLASSIFIED	0

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.

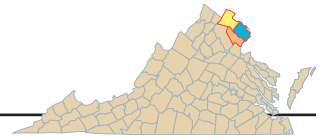


Manassas Park city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	701
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	756
MANUFACTURING	595
TRADE-WHOLESALE	907
TRADE-RETAIL	572
TRANSPORTATION	426
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	D
PROF/TECH SERV	813
MANAGMNT OF COS	D
ADMIN/WASTE SER	710
EDUCATIONAL SER	D
HEALTH CARE	D
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	297
OTHER SERVICES	675
GOVT TOTAL	627
GOVT FEDERAL	956
GOVT STATE	740
GOVT LOCAL	625
UNCLASSIFIED	0

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.



Unemployment Rate Trends

Fairfax County

Year	Rate
2002	3.0
2001	2.3
2000	1.2
1999	1.6
1998	1.6

Year	Rate
1997	2.3
1996	2.7
1995	2.8
1994	3.1
1993	3.3

Loudoun County

Year	Rate
2002	3.6
2001	2.4
2000	0.9
1999	1.1
1998	1.3

Year	Rate
1997	2.0
1996	2.4
1995	2.8
1994	3.2
1993	3.3

Prince William County

Year	Rate
2002	3.2
2001	2.3
2000	1.5
1999	1.9
1998	2.0

Year	Rate
1997	2.7
1996	2.8
1995	3.3
1994	3.3
1993	3.5

Fairfax city

Year	Rate
2002	1.3
2001	0.7
2000	0.6
1999	0.9
1998	1.3

Year	Rate
1997	1.5
1996	1.5
1995	1.4
1994	1.5
1993	2.3

Falls Church city

Year	Rate
2002	2.9
2001	2.6
2000	1.1
1999	1.3
1998	2.2

Year	Rate
1997	3.6
1996	4.1
1995	4.3
1994	2.6
1993	4.2

Manassas city

Year	Rate
2002	4.2
2001	3.3
2000	1.2
1999	1.6
1998	1.9

Year	Rate
1997	2.9
1996	3.5
1995	3.6
1994	3.7
1993	4.0

Manassas Park city

Year	Rate
2002	2.3
2001	1.2
2000	0.8
1999	1.3
1998	1.7

Year	Rate
1997	2.0
1996	3.8
1995	2.3
1994	3.1
1993	2.2



Population by Age

Fairfax County

	1990	2000	2010	2020	2030
0-14	166,702	206,401	228,645	256,182	280,678
15-24	113,632	112,187	141,027	158,012	173,121
25-34	158,602	150,257	149,919	167,975	184,036
35-44	158,119	178,871	190,149	213,050	233,421
45-54	107,709	157,350	171,398	192,040	210,403
55+	113,820	164,683	238,961	267,740	293,341
Total	818,584	969,749	1,120,100	1,255,000	1,375,000

Loudoun County

	1990	2000	2010	2020	2030
0-14	19,895	44,268	57,689	67,397	85,338
15-24	11,203	15,939	36,121	50,430	46,821
25-34	18,336	29,920	30,572	46,841	56,283
35-44	15,882	36,086	43,160	30,891	50,973
45-54	10,200	22,232	40,453	48,851	43,084
55+	10,613	21,154	52,004	85,591	107,502
Total	86,129	169,599	260,000	330,000	390,000

Prince William County

	1990	2000	2010	2020	2030
0-14	56,045	72,050	79,737	88,038	100,938
15-24	33,397	38,179	51,783	58,285	61,128
25-34	46,114	45,311	41,810	56,097	62,694
35-44	39,806	53,512	51,856	46,769	60,063
45-54	23,365	38,377	60,957	57,973	54,328
55+	16,959	33,384	71,858	110,639	138,849
Total	215,686	280,813	358,000	417,800	478,000

Fairfax city

	1990	2000	2010	2020	2030
0-14	3,147	3,688	3,736	3,858	4,156
15-24	3,216	2,696	3,123	3,275	3,413
25-34	3,941	3,586	3,264	3,632	3,832
35-44	2,993	3,655	3,506	3,054	3,267
45-54	2,231	3,049	3,019	2,913	2,516
55+	4,094	4,824	6,353	7,268	7,815
Total	19,622	21,498	23,000	24,000	25,000

Falls Church city

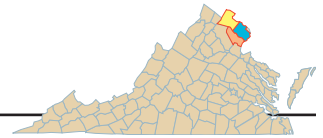
	1990	2000	2010	2020	2030
0-14	1,578	1,966	2,051	2,204	2,435
15-24	983	996	1,209	1,306	1,396
25-34	1,685	1,383	1,333	1,559	1,683
35-44	1,918	1,849	1,808	1,652	1,815
45-54	1,165	1,971	1,919	1,848	1,654
55+	2,249	2,212	3,081	3,631	4,017
Total	9,578	10,377	11,400	12,200	13,000

Manassas city

	1990	2000	2010	2020	2030
0-14	6,998	8,849	9,237	9,651	10,804
15-24	4,271	4,995	6,392	6,862	7,023
25-34	6,632	6,116	5,358	6,795	7,426
35-44	4,794	6,464	5,849	4,996	6,215
45-54	2,584	4,589	6,727	6,035	5,058
55+	2,678	4,122	8,338	14,061	18,375
Total	27,957	35,135	41,900	48,400	54,900

2010 - 2030 data are projections.

Source: Virginia Employment Commission 8/03, U.S. Census Bureau.



Population by Age

Manassas Park city

	1990	2000	2010	2020	2030
0-14	1,801	2,740	3,206	3,493	4,046
15-24	1,063	1,351	1,937	2,165	2,292
25-34	1,730	2,130	2,065	2,708	3,068
35-44	899	1,994	2,024	1,814	2,349
45-54	566	1,049	1,755	1,640	1,437
55+	675	1,026	2,312	3,980	5,109
Total	6,734	10,290	13,300	15,800	18,300

2010 - 2030 data are projections.

Source: Virginia Employment Commission 8/03, U.S. Census Bureau.



Employment by Industry

Fairfax County

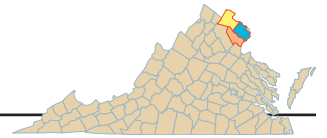
INDUSTRY SECTOR	2002
****TOTAL****	525,605
AGRICULTURE	106
MINING	D
UTILITIES	1,528
CONSTRUCTION	30,448
MANUFACTURING	11,738
TRADE-WHOLESALE	15,731
TRADE-RETAIL	54,234
TRANSPORTATION	6,181
INFORMATION	36,420
FINANCE/INSURNC	22,687
REAL ESTATE	9,160
PROF/TECH SERV	112,008
MANAGMNT OF COS	15,335
ADMIN/WASTE SER	37,063
EDUCATIONAL SER	6,150
HEALTH CARE	38,045
ARTS/ENTER/REC	6,975
ACCOMMDATN/FOOD	34,593
OTHER SERVICES	20,766
GOVT TOTAL	66,343
GOVT FEDERAL	16,112
GOVT STATE	7,605
GOVT LOCAL	42,626
UNCLASSIFIED	0

Loudoun County

INDUSTRY SECTOR	2002
****TOTAL****	98,907
AGRICULTURE	413
MINING	184
UTILITIES	D
CONSTRUCTION	10,371
MANUFACTURING	4,074
TRADE-WHOLESALE	2,834
TRADE-RETAIL	11,112
TRANSPORTATION	11,559
INFORMATION	10,439
FINANCE/INSURNC	1,962
REAL ESTATE	1,115
PROF/TECH SERV	7,398
MANAGMNT OF COS	567
ADMIN/WASTE SER	4,632
EDUCATIONAL SER	878
HEALTH CARE	4,914
ARTS/ENTER/REC	1,506
ACCOMMDATN/FOOD	7,141
OTHER SERVICES	2,721
GOVT TOTAL	14,984
GOVT FEDERAL	4,281
GOVT STATE	769
GOVT LOCAL	9,934
UNCLASSIFIED	2

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.



Employment by Industry

Prince William County

INDUSTRY SECTOR	2002
****TOTAL****	85,907
AGRICULTURE	148
MINING	D
UTILITIES	D
CONSTRUCTION	11,093
MANUFACTURING	2,606
TRADE-WHOLESALE	2,017
TRADE-RETAIL	15,438
TRANSPORTATION	1,567
INFORMATION	1,280
FINANCE/INSURNC	1,428
REAL ESTATE	1,460
PROF/TECH SERV	4,548
MANAGMNT OF COS	596
ADMIN/WASTE SER	5,143
EDUCATIONAL SER	580
HEALTH CARE	5,447
ARTS/ENTER/REC	1,777
ACCOMMDATN/FOOD	8,582
OTHER SERVICES	2,848
GOVT TOTAL	18,870
GOVT FEDERAL	4,078
GOVT STATE	1,597
GOVT LOCAL	13,195
UNCLASSIFIED	0

Fairfax city

INDUSTRY SECTOR	2002
****TOTAL****	18,179
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	1,065
MANUFACTURING	121
TRADE-WHOLESALE	264
TRADE-RETAIL	3,870
TRANSPORTATION	117
INFORMATION	784
FINANCE/INSURNC	995
REAL ESTATE	372
PROF/TECH SERV	2,865
MANAGMNT OF COS	72
ADMIN/WASTE SER	1,096
EDUCATIONAL SER	83
HEALTH CARE	2,296
ARTS/ENTER/REC	218
ACCOMMDATN/FOOD	1,668
OTHER SERVICES	726
GOVT TOTAL	1,460
GOVT FEDERAL	659
GOVT STATE	355
GOVT LOCAL	447
UNCLASSIFIED	0

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.



Employment by Industry

Falls Church city

INDUSTRY SECTOR	2002
****TOTAL****	14,506
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	881
MANUFACTURING	104
TRADE-WHOLESALE	105
TRADE-RETAIL	1,528
TRANSPORTATION	82
INFORMATION	363
FINANCE/INSURNC	191
REAL ESTATE	180
PROF/TECH SERV	1,180
MANAGMNT OF COS	D
ADMIN/WASTE SER	855
EDUCATIONAL SER	216
HEALTH CARE	1,973
ARTS/ENTER/REC	48
ACCOMMDATN/FOOD	963
OTHER SERVICES	694
GOVT TOTAL	5,094
GOVT FEDERAL	4,022
GOVT STATE	263
GOVT LOCAL	809
UNCLASSIFIED	0

Manassas city

INDUSTRY SECTOR	2002
****TOTAL****	21,362
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	2,076
MANUFACTURING	1,701
TRADE-WHOLESALE	565
TRADE-RETAIL	3,197
TRANSPORTATION	529
INFORMATION	248
FINANCE/INSURNC	454
REAL ESTATE	321
PROF/TECH SERV	3,073
MANAGMNT OF COS	D
ADMIN/WASTE SER	824
EDUCATIONAL SER	256
HEALTH CARE	3,385
ARTS/ENTER/REC	99
ACCOMMDATN/FOOD	1,654
OTHER SERVICES	685
GOVT TOTAL	2,056
GOVT FEDERAL	516
GOVT STATE	97
GOVT LOCAL	1,443
UNCLASSIFIED	0

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.



Employment by Industry

Manassas Park city

INDUSTRY SECTOR	2002
****TOTAL****	3,798
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	1,774
MANUFACTURING	249
TRADE-WHOLESALE	199
TRADE-RETAIL	347
TRANSPORTATION	35
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	D
PROF/TECH SERV	132
MANAGMNT OF COS	D
ADMIN/WASTE SER	291
EDUCATIONAL SER	D
HEALTH CARE	D
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	81
OTHER SERVICES	124
GOVT TOTAL	506
GOVT FEDERAL	1
GOVT STATE	3
GOVT LOCAL	502
UNCLASSIFIED	0

"D" indicates nondisclosed data.

Source: Covered Employment and Wage data, Annualized 2002.